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THESIS

RESTRUCTURING MILITARY OPERATIONS AT NPS TO BETTER MANAGE BASE OPERATIONS SUPPORT

by

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December, 1995

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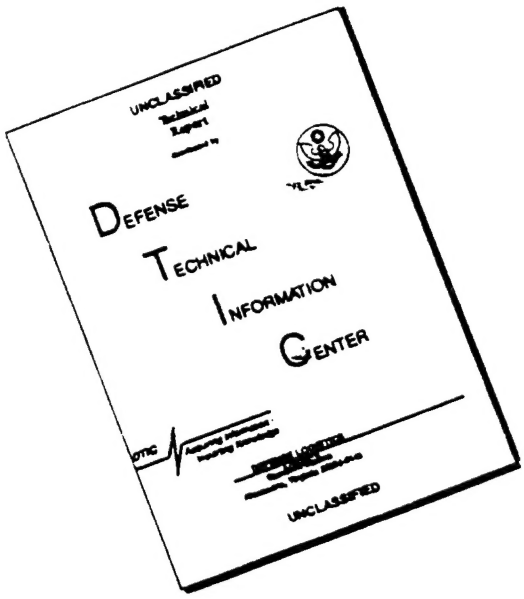

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13. ABSTRACT *(maximum 200 words)*

This thesis used action research to make restructuring recommendations for the Director of Military Operations (Code 04), Naval Postgraduate School (NPS). The restructuring recommendations were provided to assist Code 04 in managing Base Operations Support (BOS) it provides to the Presidio of Monterey (POM) and other activities.

Following the closure of Fort Ord, BOS for the POM shifted from Fort Ord to NPS. This created some of the largest and most complex Interservice Support Agreements (ISAs) in DoD. Because of the size and scope of the ISAs, a much more complex organizational relationship exists between Code 04, the POM, and other supported commands. This complex organizational relationship has caused coordination problems and overloaded Code 04.

The criteria used to make restructuring recommendations were the cost associated with the restructuring and the congruence of the of the organization structure with its environment.

The central recommendation is that NPS include an integrator function under Code 04 to coordinate and control the development and execution of ISAs.

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RESTRUCTURING MILITARY OPERATIONS AT NPS TO BETTER MANAGE BASE OPERATIONS SUPPORT

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TABLE OF CONTENTS

I. INTRODUCTION

The environment DoD has been operating in for the last several years is one of shrinking budgets and reduced numbers of military installations and other assets such as aircraft, ships, personnel, etc. The environment has also caused the redistribution and consolidation of functions to better match available resources. This redistribution and/or consolidation of resources has caused military installations to close, reduce in size, or, in some instances, grow in size and/or mission. The later case, growth in mission, is the environment the Naval Postgraduate School (NPS)[1] is in today. With the closure of Fort Ord, NPS assumed the responsibility of base operations support[2] (BOS) for the Presidio of Monterey (POM) and other commands previously supported by Fort Ord. NPS also assumed BOS for new commands that moved into Fort Ord buildings and facilities at Fort Ord that were not closed. NPS responded to its increased responsibility by expanding its work force to support its added mission. This thesis will look at the background which caused NPS' mission to increase in scope and provide alternatives for restructuring itself to better cope with its increased mission.

A. AREA OF RESEARCH & RESEARCH QUESTIONS

This thesis looks at reorganization options for the Director of Military Operations (Code 04) at NPS. (See Figures 1.1 and 1.2). Code 04 is specifically looking for

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[1] A complete list of acronyms is provided in Appendix A.

[2] A definition of "base operations support" is provided in Appendix B

alternatives to better coordinate his relationship with the school's tenant commands[3] and the newly established Interservice Support Agreements[4] (ISAs) with the (POM) and the POM Annex[5].

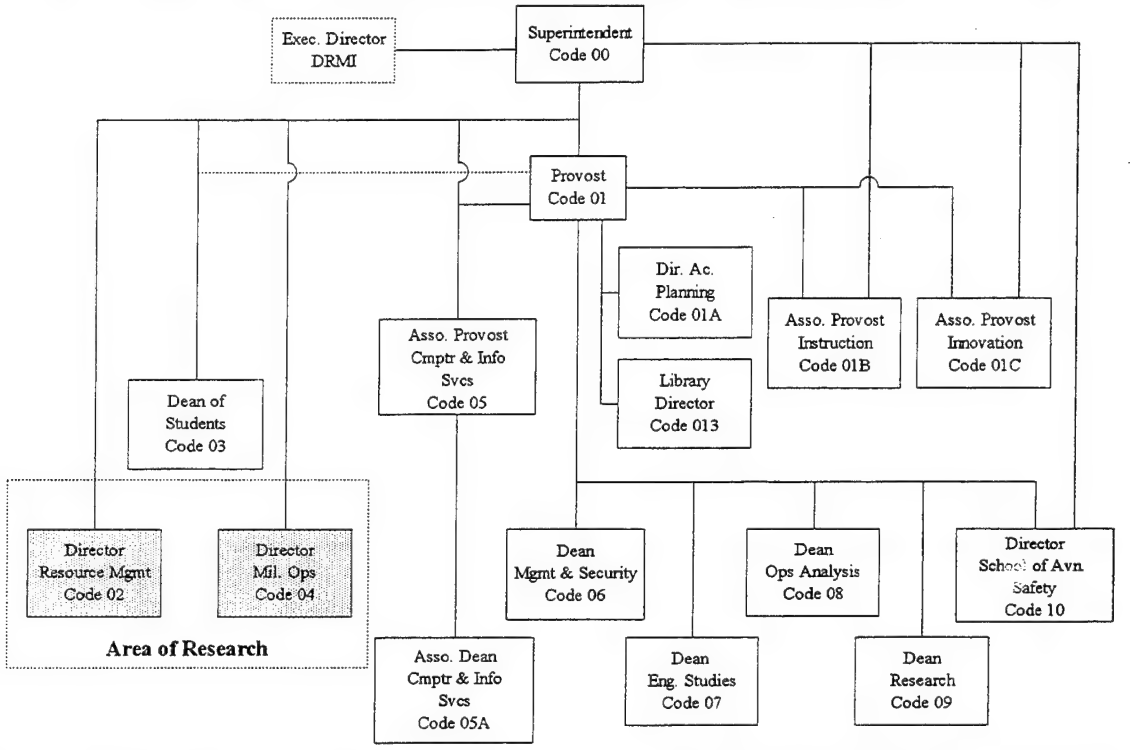

Figure 1.1 Naval Postgraduate School Organization

[3] A definition of "tenant command" is provided in Appendix B.

[4] A definition of "Interservice Support Agreement" is provided in Appendix B.

[5] The POM annex are those facilities, located at Fort Ord, that remained open to support NPS and the POM when Fort Ord closed.

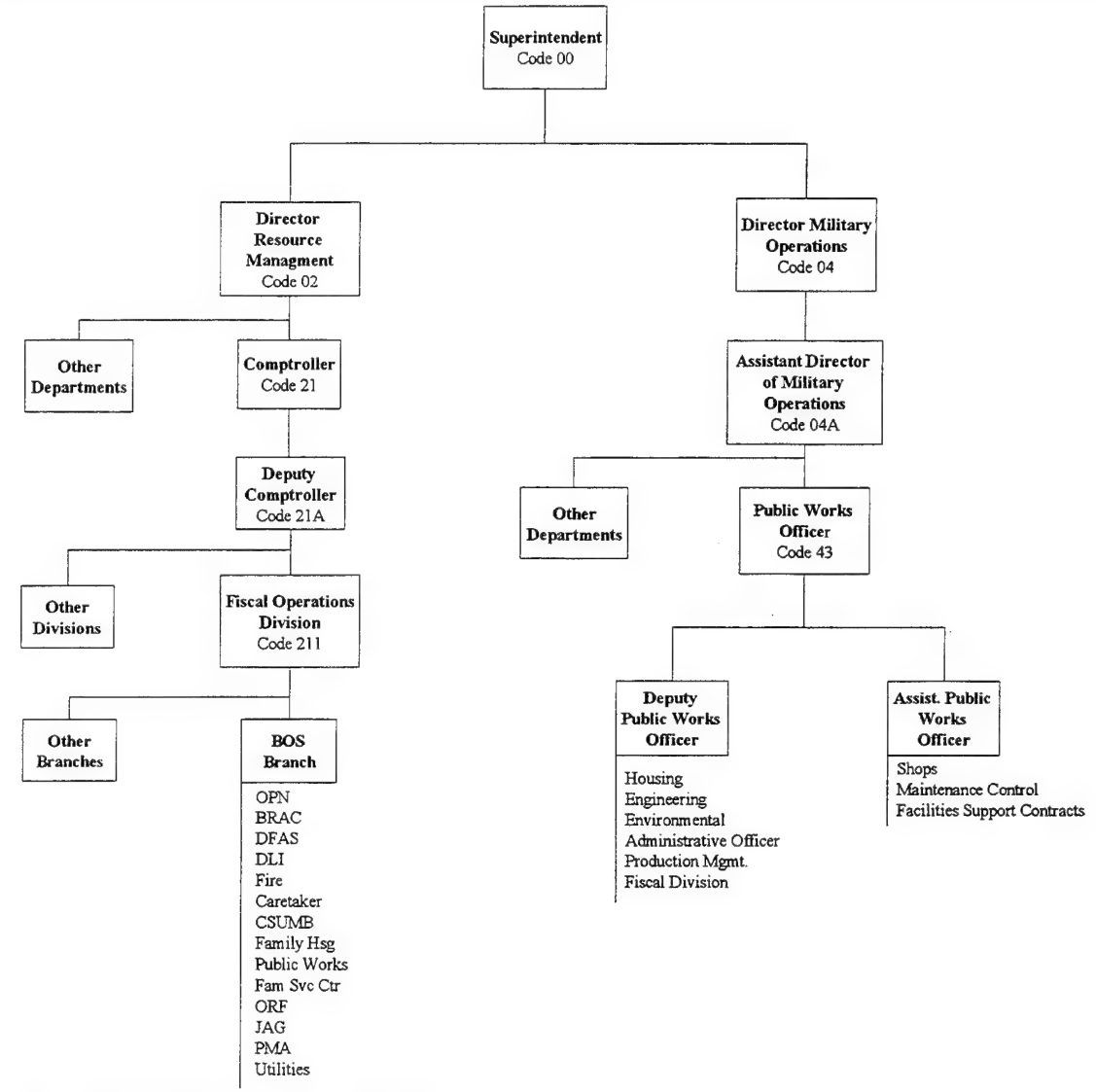

Figure 1.2 Area of Research

1. Primary Research Question

The primary research question this thesis addresses is how Code 04's organization at the Naval Postgraduate School should restructure itself to better manage the base operations support agreements between NPS, its tenant commands, and the Presidio of Monterey and the POM Annex.

2. Secondary Research Questions

The secondary research questions are: What are the strengths and weaknesses of alternative organizational structures? How will restructuring alternatives affect available resources for Code 04? How much will the restructuring alternatives cost?

The criteria I will use to make recommendations will be based upon the cost to manage the BOS agreements and increasing the coordination between NPS and its supported activities.

B. SCOPE

The main thrust of this thesis is to present Code 04 with restructuring alternatives to support the increased BOS provided to the POM, the POM Annex, and other activities receiving BOS from NPS. The alternatives include include the strengths and weaknesses and costs associated with each alternative.

Research to determine other methods of improving BOS support, such as transferring workload to commercial activities or other agencies or conducting extensive functional analysis of entire departments, is beyond the scope of this thesis. In addition, this thesis is not intended to encompass activities other than NPS.

C. METHODOLOGY

The methodology used in this research paper is based on the evaluation of the current ISA/BOS management situation. This evaluation is for purposes of recommending restructuring alternatives. Four sources of data are used in the evaluation process.

1. Interviews

Interviews were conducted with the Assistant Director of Military Operations and the Directors of Resource Management at NPS and the POM. Interviews were also be conducted within the Comptroller and Public Works departments of NPS.

The type of questions asked during the interviews involved ISA/BOS background at NPS, how each interviewee views the problems associated with the coordination of the support agreements and how they would like to see the coordination process improved.

2. Observations

Observations were primarily of meetings between Code 04, NPS Comptroller (Code 21) and Director of Resources at the Presidio of Monterey concerning the base operations support agreements.

3. Time Studies

Time studies were conducted at the Naval Postgraduate School in the Directors of Military Operations and Resource Management departments. The purpose for doing the time studies was to establish a baseline of who and how much time is spent on ISA/BOS issues.

4. Archival Data

Archival data for the thesis research came from a variety of sources, including the Comptroller and Director of Public Works at the Naval Postgraduate School, the Resource Management Office at the Presidio of Monterey, and the general management literature.

D. BENEFITS OF RESEARCH

The primary beneficiary of this study will be the Naval Postgraduate School. Specifically, the Directors of Resources, Military Operations and Public Works will be able to resolve coordination problems concerning management of the base operations support agreements with tenant commands and the Presidio of Monterey and POM Annex. Their involvement will be limited to major issues that require senior managements response. The secondary beneficiaries will be the tenant commands, the Presidio of Monterey, and the POM Annex who will be on the receiving end of the improved coordination.

E. OUTLINE

Chapter II is a literature review of the models used in redesigning organizations. The chapter presents an in-depth look at one model type and discusses four other types of models used to diagnose organization design problems.

Chapter III describes the research design methodology and the sources of data used in the research. The sources of data used are interviews, observations, archival, time study, and the redesigning organizations literature.

Chapter IV presents the background and the findings from the research. The chapter summarizes the results from the interviews, observations, archival data, and the time study.

Chapter V analyzes the data presented in Chapter IV.

Chapter VI provides recommendations and conclusions. The chapter also provides areas for possible further research.

II. LITERATURE REVIEW

Organization design is the making of decisions about the formal organizational arrangements, including the formal structures and the formal processes that make up an organization (Nadler and Tushman, 1988). When management perceives problems with an organization's processes or output, all too often the decision to redesign the organization to correct the problem is made without a systematic review of the symptoms, the problems, and the solution. Managers have a tendency to jump from the symptoms to the solution without reviewing the underlying problems (Roberts, 1995). Leaping from the symptoms to the solution rarely addresses the problem that is prompting the symptom. In fact, such short cuts often exacerbate the underlying problem or compound difficulties elsewhere in the organization. To diagnose problems, mangers need to look at the organization as a whole system in order to understand how the parts interact to form the whole.

To help managers think about organizations as a whole, conceptual frameworks, or models, have been developed that act as road maps to assist managers with design decisions. These models are critical because they assist in the collection of information about organization design problems and interpretation of specific problem types, and they act as guides for the analysis of problem solving and development of solutions. This chapter will discuss in detail one conceptual model and review several other models that are available for making design decisions.

A. THE CONGRUENCE MODEL

Nadler and Tushman (1988) developed a congruence (or fit) model that specifies the critical inputs, the major outputs, and the transformation processes that characterize the organization's functions, see Figure 2.1. The model's basic premise is that organizations are constructed of components that interact with each other. The components of an organization can interact well and function effectively or they can interact poorly and cause dysfunction and poor performance.

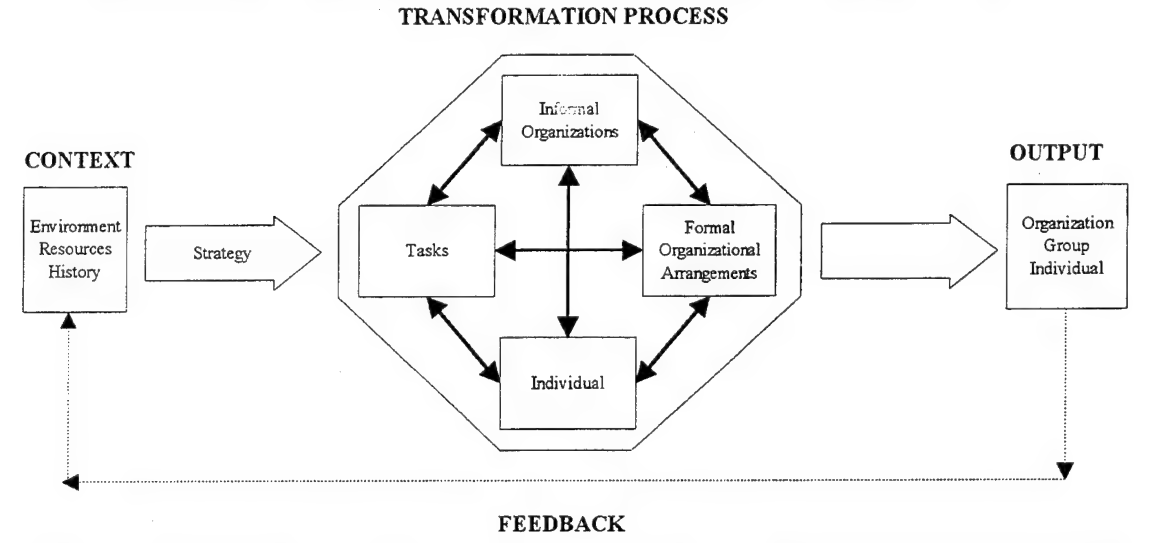

Figure 2.1 Congruence Model (Nadler and Tushman, 1988)

1. Input (Context)

The input to an organization includes all the factors outside the organization that have a potential impact on the organization. They include other institutions, groups, events, etc.

The input can be put into the context of the organizations environment, resources, and history. See Table 2.1 for an overview of the organizational context.

Table 2.1 Organization Context

	Environment	Resources	History
Definition	All Factors, including institutions, groups, individuals, events, etc, that are outside the organization being analyzed but have a potential impact on that organization.	Various assets to which the organization has access, including human resources, technology, capital, information, etc, as well as tangible resources.	The pattern of past behavior, activity, and effectiveness of the organization that may affect current organizational functioning.
Critical Features for Analysis	- What demands does the environment make of the organization? - How does the environment put constraints on organizational action?	- What is the relative quality of the different resources to which the organization has access? - To what extent are resources fixed rather than flexible?	- What have been the major stages or phases of the organization's development? - What is the current impact of such historical factors as strategic decisions, acts of key leaders, crises, and core values and norms?

Source: Nadler and Tushman (1988)

a. Environment

Every organization exists within an environment. Specifically, this environment includes government and regulatory bodies, labor unions, special interest groups, customers, suppliers, etc. Nadler and Tushman (1988) list three critical factors of the environment that effect organizational functioning. (1) The environment makes demands on the organization. For example, a parent organization directs one of its organizations to provide specific services or perform certain tasks. (2) The environment may place constraints

on the organization. An example here would be when an organization is prohibited from hiring additional personnel due to a hiring freeze imposed by a regulatory body. (3) The environment provides opportunities for the organization to explore. For example, when a competitor moves or goes out of business, an opportunity exists for an organization to increase its market share.

b. Resources

Organizations have various resources from which it can draw. They include personnel, technology, funding, etc. In terms of analysis, two aspects of resources are important - the relative quality of those resources and the flexibility of the resources. Poor resource quality such as an untrained work force or inferior materials can devastate an organization or certainly drive the organization's strategic thinking in ways that management would not desire. Having the ability to shift resources as necessary to take advantage of changing environmental conditions is essential for an organization to survive in a dynamic environment.

c. History

Institutional theorists such as Dimaggio and Powell (1987) argue that an organization's functions in large part based on the organization's norms and beliefs that were established at the inception of the organization. They further explain that past events in the history of the organization can dramatically alter the organization's core values and norms.

d. Summary

The organization's environment, resources, and history generally cannot be changed in the short run. It's from the environmental setting that managers make strategic decisions. Nadler and Tushman (1988) point out that organization strategy is reflected in those strategic decisions that allocate resources based on demands, constraints and opportunities. In basic terms, an organization's strategy is derived from its environment, the resources it has to operate with, and the past experiences of the organization.

2. Output

Nadler and Tushman (1988) argue that, looking from the organizational level, it is possible to identify several critical aspects of organizational output: how well the organization meets its objectives as determined by strategy, how efficiently the organization utilizes available resources, and how well the organization adapts to a changing environment.

These aspects are important from the organizational perspective, but there are other aspects such as the group or the individual perspective that reveal other effects on organizational output. Stress, job satisfaction, intra-departmental relationships all add or take away from the organization's effectiveness. An example would be when employees are not rewarded based on performance but, instead, on personality or some common theme such as race, religion, or gender. An organization operating in this type of environment will more often than not create tension, ill will, and a general distrust of the management which will cause the employees to work inefficiently and less effectively.

3. Transformation Process

The congruence model places its greatest emphasis on the transformation process. This process takes the environment, available resources, and history of the organization and transforms them into an effective output. Nadler and Tushman (1988) describe four major components of the transformation process in an organization: (1) the tasks, (2) the individuals, (3) the formal organization arrangements, and (4) the informal organization. See Table 2.2 for an overview of these components.

a. Tasks

The task component of an organization emphasizes specific work activities, or functions, that need to be accomplished. Assuming the purpose for performing a task is to fulfill some aspect of the organization's strategy, the task is the starting point for analyzing the other three components of the organization. This is particularly critical for analyzing an organization for possible redesign. Since we organize to get work done it is important to understand the nature of that work and how the work flows.

Table 2.2 The Four Organizational Components

	Task	Individual	Formal Organizational Arrangements	Informal Organization
Definition	The basic and inherent work to be done by the organization and its parts.	The characteristics of individuals in the organization.	The various structures, processes, methods that are formally created to get individuals to perform tasks.	The emerging arrangements including structures, processes, relationships.
Critical Features of Each Component	- Degree of uncertainty associated with the work, including factors such as interdependence and routineness. - Types of skill and knowledge demands the work poses. - Types of rewards the work inherently can provide. - Constraints on performance demands inherent in the work.	- Knowledge and skills individuals have. - Individual needs and preferences. - Perceptions and expectancies. - Background factors. - Demography.	- Grouping of functions, structure of units. - Coordination and control mechanisms. - Job design. - Work environment. - Human resources management systems. - Reward systems. - Physical location.	- Leader behavior. - Norms, values. - Intragroup relations. - Intergroup relations. - Informal working arrangements. - Communication and influence patterns. - Key roles. - Climate. - Power, politics.

Source: Nadler and Tushman, 1988

b. Individuals

The individuals in an organization provide the knowledge and skills necessary to perform the required tasks. The critical aspects to consider in this component are the different needs or preferences individuals bring to the organization and the perceptions and expectations they develop.

c. Formal Organizational Arrangements

These include the structure, processes, methods, and procedures that are required to perform tasks consistent with the organization's strategy. Some examples of formal organizational arrangements are grouping work along functional lines, coordination and control mechanisms, reward systems, and physical location of work units.

d. Informal Organization

Regardless of how well an organization is designed to encompass all possible work flows, informal organizations will develop over time. Informal organizations emerge to complement the formal organization structure or in a reaction to the formal structure. In either case, the informal organization structure can aid or hinder the performance of an organization (Nadler and Tushman, 1988).

e. Summary

In general, the transformation process enables the general manager to assess the degree of congruence, or fit, between two or more components. As one example, tasks require skills and knowledge from those who perform them. Individuals in turn bring their

level of skill and knowledge to the tasks. If the individual's characteristics match the task requirements there is a good fit and the organization's performance will be more effective.

Nadler and Tushman further explain (Figure 2.1) that the whole organization exhibits a degree of congruence in the same way that pairs of components in the transformation process exhibit congruence. In fact, the greater the total fit among all the components, the more effective the organization will be.

The strength of the Congruence Model is its thoroughness and systematic-flow perspective. The model guides the user through the diagnostic process which, if done correctly, will provide the user with tools for organization redesign. A weakness of this model is its complexity and the time required to properly develop the model.

An important implication of the congruence model is that is provides a *general* organizing framework. More specific models such as an information processing model (see Figure 2.2) would be required in order to define levels of congruence deep within the formal organizational structure.

The information processing model can be thought of as an expansion of the task and organizational arrangement sections of the congruence model. The task characteristics are described on the left, the key elements of the organizational arrangements on the right, and the fit line in the middle.

The model provides direction for making organization design decisions in a two step process: analysis of work done by the organization in order to determine the

information processing requirements required by the work and construction of an organization design that provides the needed information processing capacity.

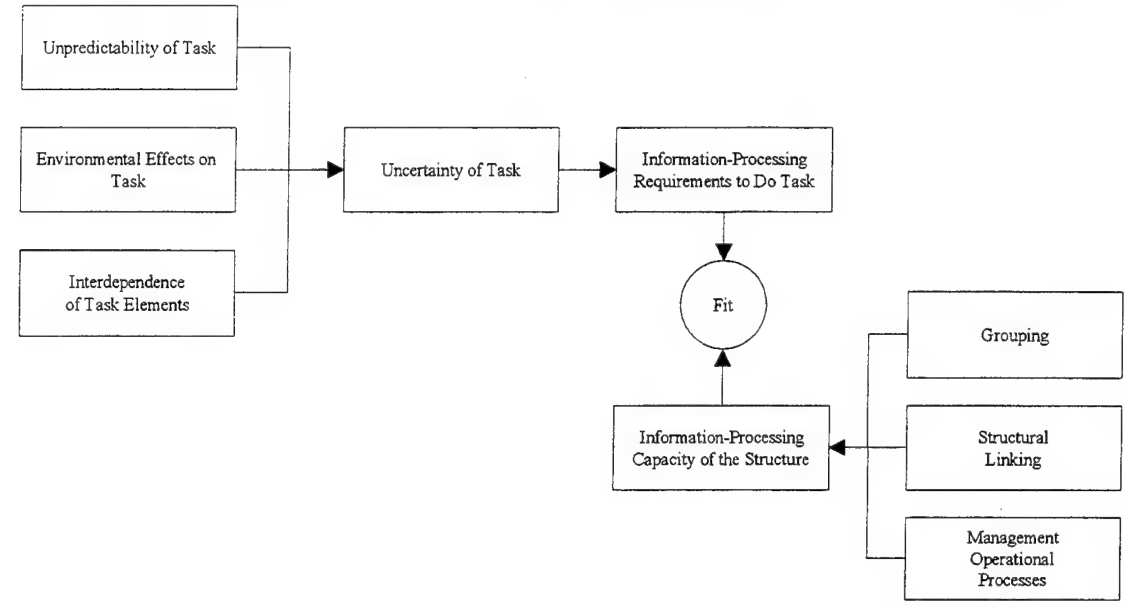

Figure 2.2 Information Processing Model (Nadler and Tushman, 1988)

B. PROBLEM ANALYSIS PROCESS

To use the congruence model in a systematic manner, a manager needs to gather information on the inputs/outputs of the organization, symptoms of the organization's problem, the causes of the problem, formulation of action plans to correct the problem, and implementation of the action plans. To assist management with this task, Nadler and Tushman have developed several steps to follow to analyze an organization's problems. (See Table 2.3 for an overview of the process).

Table 2.3 lists only the initial steps in organizational problem analysis. After the problem has been identified, actions plans are formulated and implemented. Management

must monitor the changes to determine if they are producing the desired effect or if further analysis is needed to correct the problem.

Table 2.3 Steps in Organizational Problem Analysis

Step	Explanation
1. Identify issues	List data indicating possible existence of problems.
2. Specify input	Identify the system. Determine nature of environment, resources, and history.
3. Identify output	Identify data that defines the nature of output at various levels (individual, group/unit, organization). Should include desired output as derived from strategy and actual output being obtained.
4. Identify problems	Identify areas where there are significant and meaningful differences between desired and actual output.
5. Describe components of the organization	Describe basic nature of each of the four components with emphasis on its critical features.
6. Assess congruence (fit)	Analyze relative congruence among components.
7. Generate hypothesis	Analyze to associate fit with specific problem.
8. Identify action steps	Indicate what possible actions might deal with causes of problems.

Source: Nadler and Tushman (1988)

C. OTHER DESIGN MODELS

1. The Star Model

Galbraith (1995) developed a model specifically for helping management select an effective organizational design. (See Figure 2.3). The model has five categories on which the

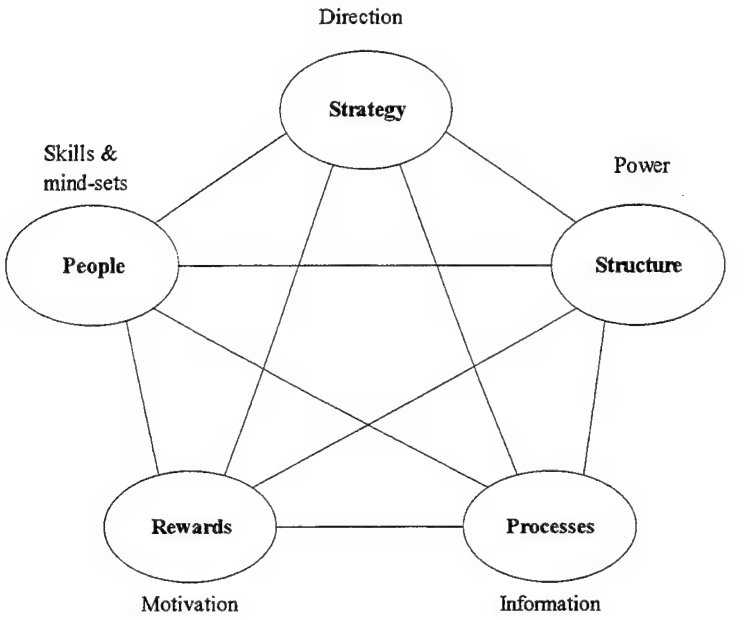

Figure 2.3 Star Model (Galbraith, 1995)

manager needs to focus his attention for the purpose of producing an effective and efficient organizational design. The first category, strategy, determines the direction of the organization. The second, structure, determines the location of power and decision making in the organization. Processes determine the information flow within the organization and provide insight into the informal organizational structure. The reward system provides employee motivation to work towards the organization's goals. The people policies provide

the employees with the proper training and knowledge to perform their tasks and also motivates the employee.

One of the implications of the Star Model is that similar strategies can produce different organizational designs. Though two different organizations have similar strategies, factoring in the environment, people, rewards, and processes can produce a very different organizational structure. An example would be when two firms have the same strategy of increasing market share by becoming the low cost producer. One of the firms, which has been in the business for a long period of time, has established processes, routines, and reward systems that have become rigid, hierarchical, and mechanistic. The other firm, being new to the business, might have less rigid processes and reward systems and a very flat design. However, this is not to say the firms could not be reversed in their situations, with the new firm being hierarchical and the older firm more flat.

Another implication of the Star Model is its design. The star shape shows the connections between the categories and how they must "fit" together for the organization to be effective. The "fit" aspect of the Star Model resembles the Congruence Model, but on a less detailed scale.

The strength of the Star Model is its simplicity in design. Galbraith designed the model as a tool for executive level management to evaluate their organization's design. A weakness of the model can also be its simplicity. Relying solely on the Star Model as a reference source could result in a misdiagnosis of the problem and could worsen the situation or cause additional problems.

2. Weisbord's Six Box Model

Weisbord's (1967) model is useful because it helps managers visualize reality and it is relatively simple in design. (See Figure 2.4). The model is like a radar screen with "blips" that tell the manager about organizational highlights and issues (Burke, 1987).

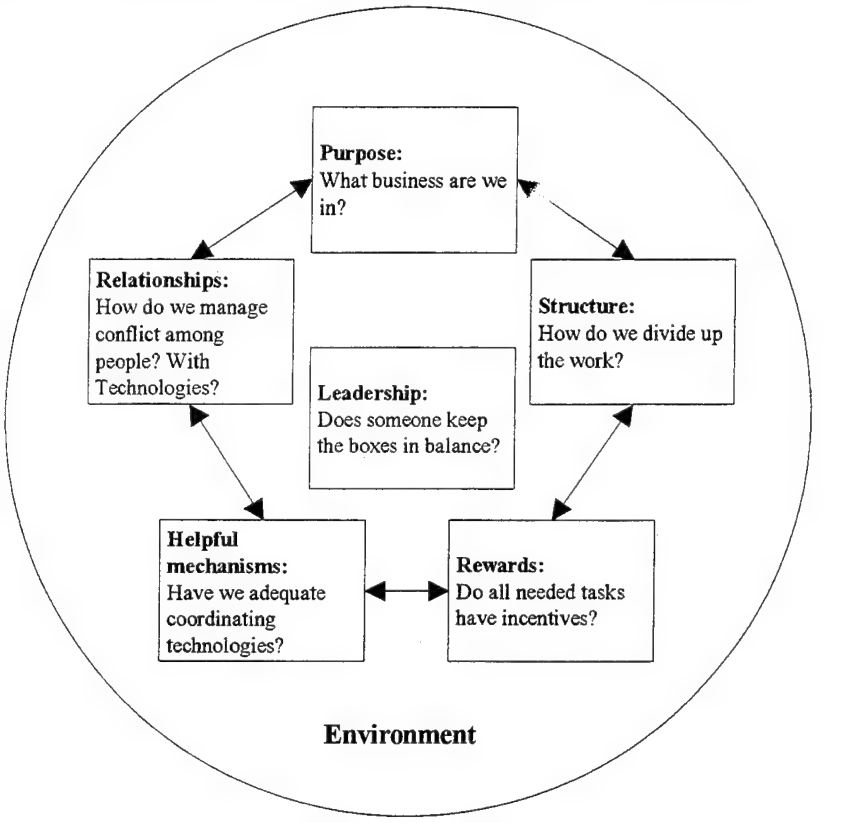

Figure 2.4 Weisbord's Six-Box Model (Weisbord, 1988)

Weisbord asks key diagnostic questions for each of the six categories. (See Table 2.4). The questions in each of the categories are directed at the formal and informal organization. Weisbord feels the key aspect of organizational diagnosis is the gap between the formal dimensions of the organization and the informal. An example would be the official

standard operating procedures of the organization as compared to how operations are actually conducted.

Table 2.4 Weisbord's Matrix for Data Analysis

	Formal System (Work To Be Done)	Informal System (Process of Working)
1. Purpose	Goal clarity.	Goal Agreement.
2. Structure	Functional, program, or matrix?	How is work actually done or not done?
3. Relationships	Who should deal with whom on what? Which technologies should be used?	How well do they do it? Quality of relationships? Modes of conflict management?
4. Rewards (Incentives)	Explicit system What is it?	Implicit, psychic rewards What do people Feel about payoffs?
5. Leadership	What do top people manage?	How?
6. Helpful mechanisms	Budget system Management information Planning Control	What are they actually used for? How do they function in practice? How are systems subverted?

Source: Weisbord, 1976.

In summary, the simplicity of Weisbord's model lends itself to managers who have difficulty in thinking of the organization as an interconnected system as defined by his categories. In addition, if the manager is under a time constraint and doesn't have time to diagnose his organization with a more complex model, such as the congruence model, the manager can use this model.

3. Hornstein and Tichy's Emergent Pragmatic Model

Hornstein and Tichy's organizational diagnosis model is probably closer to a theory than a model. Their premise is that most managers and consultants carry around in their heads implicit models about organizational behavior (Burke, 1987). Hornstein and Tichy argue that more structured models, such as those presented earlier, impose the author's values, beliefs, and norms on the organization. What is needed is a process the consultant and manager can use to combine their knowledge to develop a model that is organization-specific - sort of "do-it-yourself" modeling.

According to Burke (1987), the Emergent Pragmatic Model uses a workbook in which the managers select the topics they would seek to use in diagnosing an organization. The workbook includes such items as goals, informal characteristics, satisfaction of employees, etc. The managers then develop categories of organizational components and place their topics into the appropriate category. Next the managers imagine change in each component and think through how that change would effect the other components. The resultant matrix shows which components the managers believe are the most and least significant in terms of impact on the other components. This ranking of categories gives the managers a visual model from which they base their strategies and techniques for change.

The next phases of the model are concerned with establishing the criteria for assuring success with the organizational change. These criteria usually stem from the organization's history regarding change, budget considerations, the norms and beliefs of the employees and

management, etc. In the final phase, criteria are developed to evaluate the success or failure of the change strategy.

According to Burke (1987), the strength of the Emergent Pragmatic Model is based on two assumptions: (1) that most managers and consultants have intuitive theories about the organization's function and (2) that other models impose too much structure on the manager and might inhibit the manager from developing a diagnostic strategy more congruent with the organization's environment. The weakness of the Emergent Pragmatic Model is the time and energy required on the part of management to diagnose the organization's problems. Management participation is central in developing the model used for the diagnosis. In the other models, the consultant does the majority of research based on a predefined model.

4. Summary

From review of the literature it is apparent there are many models available to diagnose organizational problems. The four I picked are a representation from the complex, (Nadler and Tushman, 1988) to the simple, (Galbraith 1995, and Weisbord, 1988), to the emergent, (Hornstein and Tichy, 1987) . There are models that have very specific functions that emphasize different aspects of an organization, such as the financial, economic, or, as figure 2.2 depicts, the information processing aspect. Table 2.5 summarizes the strengths and weaknesses of each of the models presented.

Table 2.5 Models Strengths and Weaknesses

Model	Strengths	Weaknesses
Congruence Model	Thoroughness Systematic process	Complex process Time consuming
Star Model	Simple to use Useful when there is a time constraint	Could be too simplistic for complex problems
Weisbord's Model	When a relatively uncomplicated organizational map is needed quickly	Could be too simplistic for complex problems
Emergent Pragmatic Model	Lack of structure enables managers to develop models based on their experiences and intuitions	Time and energy required of management to properly use model

Source: Burke, 1987

D. WHEN TO REDESIGN AN ORGANIZATION

The design models presented above provide a means of determining when an organizational redesign is required. Using the congruence model (Figure 2.1), when an organization evolves to the point where "the fit" between formal organizational arrangements and other components is no longer congruent, a redesign of the organization should be considered (Nadler and Tushman, 1988). In contrast to evolving when an organization anticipates or knows of situations that will lead to a poor fit between the components, such as major environmental or resource changes, this could signify a need to redesign the organization as well. Some of the more common situations that require a redesign of an organization are the following:

1. Strategy Shift

Strategic shifts may be required because of environmental factors such as new regulations, competition, change in resources, etc. When an organization's environment changes that can drive a strategy shift that leads to redefine the business, its products and the customers it services.

2. Task Redefinition

The incorporation of new technologies into the organization can result in changes in work flow or, in the extreme, the positions of the entire work unit can become obsolete. Changes in resource quality or availability can shift emphasis in an organization to require more or less staffing in critical areas.

3. Change in People

In organizations where senior management changes every two or three years, organization redesign might become routine. This is particularly true for military organizations, where the commanding officer and all other senior military managers are routinely transferred. What exacerbates the problem for the military is the fact that managers rarely come from within the organization. They bring to the organization their own ideas and beliefs about what should be its direction.

4. Growth

Growth in size or scope of an organization is one of the typical problems that require redesign of the organization. When organizations are small, many of the mechanisms that control behavior, work-flow, and motivation can be informal. When an organization increases

its size those mechanisms can become awkward and too simple to manage more complex relationships.

5. Political/Culture Change

Political or cultural changes can come about through changes in the organization's environment. When an organization is directed to provide new and varied services to other organizations that have their own culture, a clash between the organizations can result and lead to mistrust and suspicion of each other. What one organization considers to be critical can be entirely opposite of what another organization perceives as critical.

The above situations are what might typically justify an organization redesign. But those situations by themselves are not justification enough for launching into a new design. Management must determine the symptoms that are being experienced in order to diagnose the problem correctly. As Table 2.3 points out, the first step in organizational problem analysis is to identify the symptoms that might be linked to organizational design problems. Table 2.6 list several types of symptoms to look for.

Table 2.6 Symptoms Caused By Organization Design Problems

Symptom	Example
Coordination	Cross-unit projects that do not get done. Work groups out of step with the rest of the organization.
Conflict	Excessive conflict between groups internal or external to the organization.
Role Clarity	Individuals are asking excessive questions about what their job entails. Functions may overlap and "turf" fights become more frequent.
Resource Misuse	Resources do not get to employees who need them. Employee skills are under-utilized.
Flow of Work	Foul-ups, slow-downs, confusion in what is the next step, reduced responsiveness to customer needs, etc.
Proliferation of Extra-organizational Units	Excessive use of special meetings to resolve crisis situations. New committees or task forces for each new situation.

Source: Nadler and Tushman, 1988

These symptoms are not inclusive nor are they full-proof reasons for organizational redesign. However, they frequently indicate that an organization design problem exists and redesign should at least be considered (Nadler and Tushman, 1988).

When an organization exhibits symptoms of noncongruence between its components, and the models provide evidence of a problem, the next step would be to review the organization's strategy and match it with a structure. This will establish a framework for

developing formal linking mechanisms that will aid in correcting the noncongruence between the organization's different components.

There are several types of formal structural linking mechanisms to choose from. The most simple is the hierarchy linking mechanism. As its name implies, the hierarchy linking mechanism relies heavily on the manager who controls and coordinates all the major functions of the group. The manager serves as the nerve center for the group and maintains the majority of the corporate knowledge concerning the group's work processes. The hierarchy linking mechanism is one of the oldest and pervasive of all the linking mechanisms. It serves a useful purpose in relatively simple mechanistic organizations where the output is easily defined. The hierarchy structure runs into difficulty when task interdependencies develop between groups under different managers. In this type of organization the manager becomes quickly overloaded.

Other structural linking mechanisms such as liaison groups, integrators, and matrix structures are needed when complex information exchanges are required between groups within an organization or between two separate organizations. The decision to use one of these linking mechanisms needs be based on several factors: the cost and/or resources used, the mechanism's dependency on the informal organization, and the information processing requirements. Table 2.7 compares the structural linking mechanisms with the above decision factors.

Table 2.7 Consequences of Structural Linking Mechanisms

	Cost	Dependence on Informal Organization	Information Processing Capacity
	High	High	High
Matrix Organization	↑	↑	↑
Integrator Roles	|	|	|
Liaison	|	|	|
Hierarchy	|	|	|
	Low	Low	Low

Source: Nadler and Tushman (1988)

Choosing the structural linking mechanism is a critical aspect in an organization redesign. Selecting a matrix type mechanism when a liaison person or group would suffice will waste resources, add to the problems it was designed to correct, and duplicate effort. Managers must choose the linking mechanisms that fit the organization's requirements. In addition, the manager must factor in the effect the linking mechanism will have on the reward and control system of the organization. Employees pay close attention to the factors that affect their formal and informal rewards. If there are obvious problems with the reward system and the structural linking, the organization performance will suffer.

Structural linking is not the only device to solve coordination problems within an organization. A good informal organization can ease the complexity of information processing in a matrix type of structure. However, for purposes of this thesis, only structural linking mechanisms will be analyzed. The strengths and weaknesses of the various linking mechanisms will be discussed in the analysis phase of this thesis.

III. METHODOLOGY

A. INTRODUCTION

This thesis is an action research study diagnosing Code 04's management of BOS agreements. This chapter discusses the methodology employed in the data collection and the limitations the methodology imposes.

Action research is a data-based, problem solving process that replicates the steps involved in the scientific method of inquiry (French and Bell, 1978). The key aspects of the process are diagnosis, data gathering, feedback to whom the research is for, data discussion, and action. For this research paper, recommendations for change were developed from a diagnosis of the data using the literature review as a guide. The findings were provided to Codes 04A and 21 for discussion and action.

The majority of the data collection in this research paper was of a qualitative nature. A qualitative strategy was used because the nature of the research question lends itself to evaluation of the process Code 04 uses to manage BOS. The qualitative methods used included interviews, observations, and archival research.

Quantitative data collection was included in the data collection as well. The purpose for using quantitative data was to add an element of depth, detail, and standardization to the qualitative data. The quantitative method used was a time study.

B. STRATEGY

1. Qualitative Methods

a. Interviews

The interview process used the informal conversational approach and the general interview guideline approach to collect data. The informal conversational approach relies heavily on the spontaneous generation of questions during the natural flow of conversation. The general interview guide approach is based on predetermined areas to explore during an interview (Patton, 1987).

For the interview process, six interviewees were selected. From NPS, under the Director of Military Operations, the Assistant Director of Military Operations, Code 04A, and the Public Works Officer, Code 43 were interviewed. These two positions were selected to be interviewed because they are directly responsible for providing BOS to other commands and for drafting the ISAs. Under the Director of Resource Management, the Comptroller, Code 21, the Physical Operations Division manager , Code 211, and the Base Operating Support Branch supervisor were interviewed. They were interviewed because each of those positions provide critical input to drafting the ISAs and for monitoring the ISA funding status.

One interview was conducted with the Director of Resource Management, Presidio of Monterey. The POM was selected because it is the largest command receiving BOS from NPS. The purpose of this interview was to gain insight into the "customer's" perspective on Code 04 management of the ISA. A point to note is that the POM is NPS' largest BOS customer; however, there are over 25 other commands for which NPS is

providing some level of BOS. A sample of the type of questions and the reason why they were asked is provided in Appendix C.

b. Archival Records

Archival records were used to gain an understanding of the history of BOS agreements between NPS and its customers. Specifically, the background that was the catalyst for the ISA between NPS and the POM was essential in understanding the problems Code 04 is having managing ISAs in general.

Review of primary archival data such as the ISA documents, funding totals from funding documents, and regulations manuals and instructions provided were instrumental in understanding the foundation, interdependence, and scope of ISAs between the providing command and the customer. The use of correspondence and presentations, as secondary archival data, was key in being able to quickly determine issues of concern and the magnitude of effect a new ISA would have on NPS.

c. Observations

Observations primarily consisted of attending a meeting between NPS and the POM concerning development of a revised ISA to replace the current one. Attendance at this meeting allowed me to better understand the relationship between the provider, NPS, and the customer, the POM. In addition, this direct observational approach allowed me to learn about issues that did not necessarily come up in the interview process.

2. Quantitative Method

For quantitative data I used a time study to determine who in Codes 02 and 04 were devoting time to ISA and BOS issues. The purpose of this time study was to establish a baseline of time the participants up and down the organization hierarchy spend on ISA and BOS issues. The criteria for accounting for time worked on ISA and BOS issues, and a copy of the time study worksheet, is provided in Appendix D.

C. LIMITATIONS OF THE STUDY

No research methodology is perfect. The objective is to select the best methodology for the circumstances and be able to justify that choice (Buckley, Buckley and Chang, 1976). Below are the limitations of the methodologies employed in this study.

1. Qualitative

a. Interviews

Opinions given during an interview represent different perceptions and hence may not accurately represent reality. The interviewee injects his opinions, personal beliefs, and views into his responses that may (unintentionally or intentionally) promote his objectives. In this research project, I was an outsider (intruder) looking for answers to questions I thought were relevant to the research question. Being an outsider, I could be perceived as a threat to the interviewee or the organization. The interviewee's responses to my questions could be couched to hide problems that they feel would reflect badly on them or the organization if they were made public. Further, I have no way of knowing if the

questions I asked were probing enough to formulate an accurate understanding of the situation.

b. Archival Records

The archival records I reviewed were primarily from issues dealing with the POM and the POM Annex. The records were briefs, presentations, and correspondence put together, for the most part, for informational purposes. This medium of archival data reflects a certain "selective retrieval" of information beyond my control. In other words, the information in the archival records I had access to were the product of another individual's beliefs of what was pertinent. Another factor was my inability to comprehend all the data I was reviewing. Interviews mitigated this somewhat, but obvious references were made in the correspondence to situations I had no knowledge of nor could I easily master during the interview process.

c. Observations

The limitations with observations were primarily concerning the limited number of situations that could be observed. Problems between NPS and its customers concerning ISAs are not scheduled; they are spontaneously driven by events. The only observation I was able to do was at a meeting between NPS and the POM concerning the contents of the revised ISA.

2. Quantitative (Time Study)

The data collected from the time study required the participants to accurately record the amount of time they spent on ISA/BOS issues. Problems with the accuracy could arise

if the participant waited several days before recording the time. Distortions in the amount of time spent working on the issues are more easily induced when there is a long gap between when the work was done and its recording in the time study.

The participants could also intentionally distort the amount of time to bolster their own agendas or sabotage someone else's. Another limitation could be the length in days and the time of year the study took place. If the study does not cover enough days to obtain an accurate representation of a daily average or the time of year is a particularly heavy or light period of ISA/BOS work, the data will be distorted.

IV. DATA PRESENTATION

A. BACKGROUND

1. Base Realignment and Closure Commission (BRAC)

On November 5, 1990, President Bush signed Public Law 101-510, which established the Defense Base Realignment and Closure Commission. The Commission's mandate was, "to provide a fair process that will result in the timely closure and realignment of military installations inside the United States" (BRAC 1993 Report to the President). The Public Law required the Secretary of Defense to submit a list of proposed military base closures and realignments to the Commission by March 15, 1993. The proposed closure and realignment list was based on the force structure plan submitted to Congress and on selection criteria developed by the Secretary of Defense and approved by Congress.

As part of its review and analysis process, the Commission solicited information from a wide variety of sources, including the communities whose bases were recommended by the Secretary of Defense for closure or realignment. Based on the Commission's review and analysis and deliberations with the communities involved, the Commission recommended to the President that 130 bases be closed and 45 bases be realigned.

a. Army Recommendation to the Secretary of Defense

The Army recommended closing the Presidio of Monterey (POM) and the Presidio of Monterey Annex (formally Fort Ord); Relocating the Defense Language Institute

(DLI), located at the POM, to Fort Huachuca, Arizona; and contracting the foreign language training with a public university at or near the fort.

The Army, as Executive Agent for the Defense Language Program, argued that DLI has a high operating overhead in both facilities and staff. The school supports over 4,000 students and staff and offers training in 20 languages (BRAC 1993 Report to the President). The Army stated that contracting foreign language training with an existing university-level institution would create significant savings in operational overhead. In addition, the Army further stated that Fort Huachuca, home of the Army Intelligence school, would be an ideal location for DLI because integrating the foreign language students with the intelligence school would produce better qualified soldiers and would increase overhead costs only marginally.

b. Monterey Community Concerns

The Monterey community argued that movement of DLI posed a serious threat to national security. They further stated the Army never conducted a commercial activities study[6] before recommending contract language training. The community also pointed out that Fort Huachuca had limited water resources, which were in litigation, and insufficient housing to support the additional students.

The community maintained that the POM Annex (old Fort Ord) was oversized. Specifically, the DLI required only 803 housing units on the Annex, the post exchange and

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[6] A definition of "commercial activities studies" is provided in Appendix B.

commissary. The remainder could be excessed. Additionally, the community disputed th base operating costs for the Presidio of Monterey, arguing that a consolidated base operations agreement between NPS and DLI would greatly reduce costs and ensure the retention of DLI at the POM.

c. Commission Findings

The commission agreed that movement of DLI would be a disruption that would not be in the best interest of national security. However, the commission found the actual return on investment for the Army's recommendation depended on extraordinary base operations costs, caused in large part by an oversized support facility at the POM Annex (BRAC 1993 Report to the President). The commission agreed with the Monterey communities' assessment of the situation, in that the Army did not explore other cost saving alternatives such as consolidation of base operating support with NPS or commercial activities studies.

d. Commission Recommendations

The commission did not follow the Secretary of Defense recommendation of closing the POM and the POM Annex. Instead, the commission recommended retaining the POM and disposing of all facilities at the POM Annex except the housing, commissary, child care facility, and post exchange required to support the POM and NPS. The commission further recommended consolidating base operations with NPS by interservice support agreement (ISA).

NPS and the POM entered into ISA negotiations to provide the POM and the POM Annex with BOS during the spring of 1994. The ISAs between NPS and the POM were formalized and signed in June 1994, with an effective date of October 1, 1994. After approximately a year under the ISAs, NPS and the POM are presently negotiating a new ISA to replace the existing one for public works support. The new ISA will include items that were not covered or were vague under the existing ISA. The new public works ISA's cost to the POM is estimated to be $12.65 million, an increase of $3 million from the existing ISA. The increase in cost is primarily for improving family housing at the POM and POM Annex.

B. INTERVIEW AND ARCHIVAL DATA

Management of BOS at NPS is dependent on what is covered under the ISA. In general, ISA management is divided between two departments: the Public Works Department (Code 43), who writes the ISA, and performs work specified in the ISA; and, the Comptroller Department (Code 21), who monitors the funding levels on the ISA by coordinating with Public Works and the activity provided BOS. (Review Figure 1.2). Not all BOS is provided by Public Works. For example, the postage costs an activity incurs are processed through the Comptroller Department without Public Works involvement.

Table 4.1 lists the current ISAs in effect and the projected funding required to perform the work or service specified in the ISAs. Figure 4.1 illustrates the relative size in dollar terms of the ISAs.

Table 4.1 NPS Interservice Support Agreements

Activity	Date Established	Length	Expiration Date	Yearly Cost to Tenant
Army Soldier Support Center	11/89	5 yrs	12/94	$ 1,500
California National Guard[1]				
Coast Guard[2]	9/91	6 yrs	10/97	$(600)
Defense Finance and Accounting Service	10/94	Indefinite	Indefinite	$ 725,000
Defense Health Resource Study Center	1/94	Indefinite	Indefinite	$ 18,050
Defense Investigative Service	9/92	6 yrs	7/98	$ 15,000
Defense Language Institute Housing Assignments[3]	10/94	Indefinite	Indefinite	$ 2,970
Defense Manpower Data Center	6/84	Indefinite	Indefinite	$ 4,425,000
Defense Printing Service	7/92	5 yrs	10/97	$ 12,400
Defense Resource Management Institute	2/76	Indefinite	Indefinite	$ 3,000,000
Defense Security Assistance Agency[1]				
Dental Clinic[4]	11/81	5 yrs	1/86	
Engineering Field Activity, West	8/92	6 yrs	7/98	$ 14,000
Fleet Numerical Meteorology and Oceanography Center	7/92	5 yrs	10/97	$ 1,533,000
Institute for Defense Education and Analysis[5]				
National Weather Service[6]				$ 5,000
Naval Criminal Investigative Service	6/92	6 yrs	5/98	$ 1,500
Naval Resale Activity	6/91	5 yrs	10/96	$ 105,000
Naval Research Laboratory	11/91	6 yrs	1/97	$ 178,700
Naval Reserve Center	8/94	Indefinite	Indefinite	$ 14,130
Naval Security Group Det.[1]	5/94	Indefinite	Indefinite	
Personnel Security Research and Education	3/91	6 yrs	2/97	$ 155,000
Personnel Support Activity Det.	4/87	Indefinite	indefinite	$ 20,200
POM/public works[4]	10/94	Indefinite	Indefinite	$ 12,650,000
POM/fire protection	10/94	indefinite	Indefinite	$ 1,151,446
POM/caretaker	10/94	Indefinite	Indefinite	$ 1,131,189
Public Health Service[1]				
Scheduled Airline Ticket Office	11/78	Indefinite	Indefinite	-0-
Training and Doctrine Analysis Command	10/90	6 yrs	9/96	$ 465,500
U.S. Post Office	10/73	Indefinite	Indefinite	-0-
Veterans Administration Clinic[6]	3/95	Indefinite	Indefinite	
TOTAL[7]				**$ 25,623,985**

Source: Interview with Code 43 Administrative Officer, August 14, 1995

[1] On hold pending notification of support requirements.

[2] NPS reimburses the Coast Guard for use of Coast Guard piers.

[3] Based on $594 per foreign student (five students) living at the POM Annex.
[4] Based on revised draft ISA.
[5] Waiting on ISA status from customer.
[6] Draft ISA being prepared.
[7] Total will fluctuate when new ISAs are established and existing ones are updated.

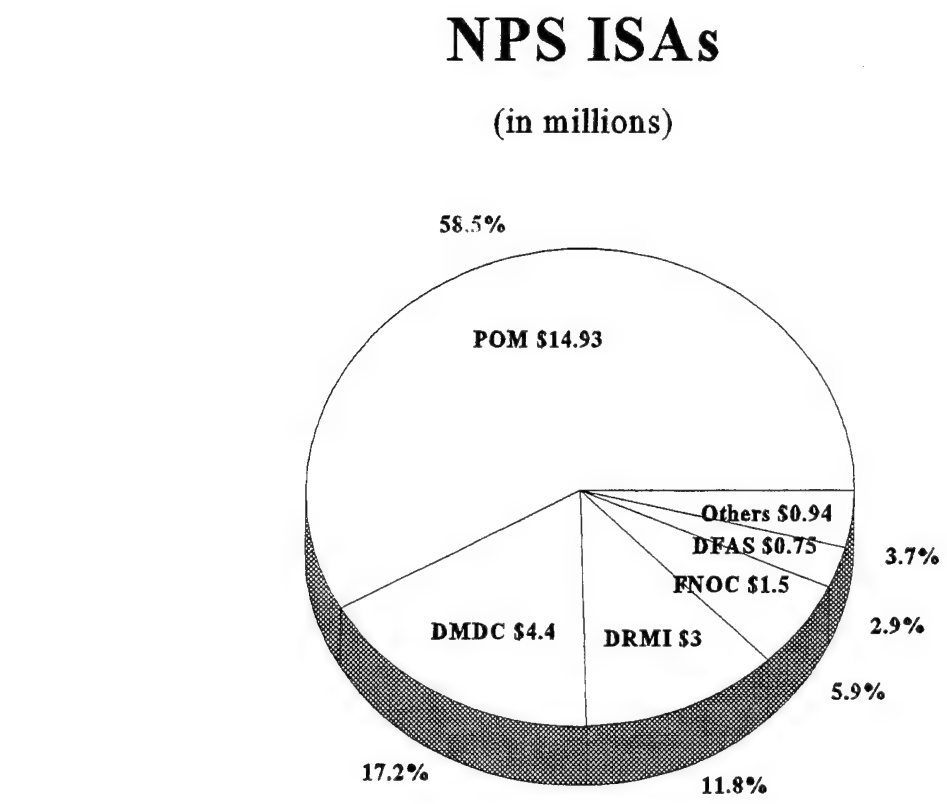

Figure 4.1 NPS ISA Chart (Interview with Code 43's Administrative Officer, August 14, 1995)

1. ISA Background

In general, the type of work or service provided on an ISA includes electricity, gas (natural), potable water, steam, janitorial, air-conditioning, building and grounds

maintenance, fire protection, postage, automated data processing, etc. When activities other than NPS request that services or work be performed by NPS, the vehicle used to establish the bilateral agreement is a Department of Defense form 1144 (DD1144), Interservice Support Agreement, a Memorandum of Understanding, or a Memorandum of Agreement[7]. All three types of bilateral agreements establish a "provider-customer" relationship (DoD Instruction 4000.19). For purposes of this thesis, all agreement vehicles will be referred to as ISAs.

2. ISA Development

When an activity requests NPS to perform work or service, the activity will provide a description of the needed work to Code 43 via Code 04. Code 43 will scope the work based on the description and submit a cost estimate to the customer activity. When the ISA is large and complex, as was the case with the ISAs between NPS and the POM, several meetings may be needed to complete the agreement. When the ISA is acceptable to both parties, the activity commander and the NPS Superintendent will sign the ISA formalizing the agreement. Once the ISA is formalized, the work and or service specified in the ISA may begin.

3. ISA Execution

Figure 4.2 is a representation of how work and or service is provided by NPS and reimbursed by the customer activity. Basically the need (step (1)), is conveyed by the

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[7] A definition of "Memorandum of Understanding" and "Memorandum of Agreement" is provided in Appendix B.

customer to Code 43 during the ISA development. Code 43 provides the ISA with a cost estimate of the work and/or service, based on negotiations with the customer, and forwards the ISA to Code 21 for review (step (2)). If Code 21 agrees with the cost estimates, he will sign the ISA and forward it to the Superintendent for signature. After the Superintendent signs, the ISA is forwarded to the customer. The ISA provides the customer with a cost estimate for work requested (step (3)). The customer provides Code 21 accounting data via a Military Interdepartment Purchase Request (MIPR) or some other funding document (step (4)). The comptroller will notify Public Works that funds are available to start work (step (5)). As work progresses (step (6)), Public Works will keep the Comptroller informed of the labor and materials used to perform the work (step (7)). The Comptroller will notify the customer and Public Works of funds remaining (step (8)). This process continues in a cycle as long as the customer requests work or services from NPS. The customer is billed by the

Defense Finance and Accounting System (DFAS) based on accounting input from Code 21. (Not shown in Figure 4.2).

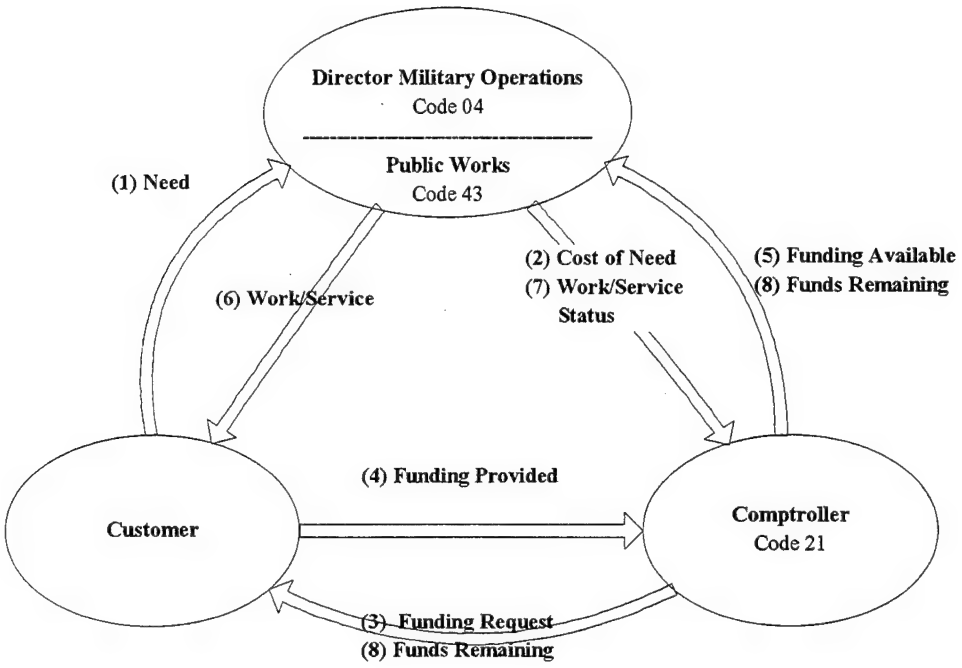

Figure 4.2 ISA Work Flow Model (Interview with BOS Manager, August 14, 1995)

4. ISA Support to the POM

The ISAs between NPS and the POM are some of the largest interservice support agreements in DoD, with a total reimbursable cost of $9.8 million. With the new public works ISA being negotiated, the total estimated reimbursable cost will be $14.93 million. The increase in reimbursable cost is primarily due to the Army providing additional family housing money to upgrade base housing at the POM and POM Annex. An overview of the POM

facilities covered under the ISAs along with a comparison with NPS' facilities is provided in Table 4.2.

Table 4.2 Facilities Overview

	NPS	POM	POM Annex
Acreage	614	390	774
Building Footage (in MSF)	1.35	1.74	1.10
Housing Units	891	92	1588

Source: Interview with NPS Comptroller (Code 21), June 14, 1995

Based on the new ISA being negotiated, the support provided and cost to the POM and POM Annex is summarized in Table 4.3. The caretaker functions include building maintenance, utility systems and road repair. Public Works support includes maintenance of: classrooms, barracks, offices, housing, etc; utility systems; grounds maintenance; and, housing office operations.

Table 4.3 ISA Support Provided to the POM

Support	Cost(millions)
Fire Protection and Prevention	$1.10
Caretaker functions for Fort Ord land not yet conveyed to other government agencies	$1.10
Public Works support	$12.65

Source: Interview with NPS Comptroller (Code 21), June 14, 1995

To support the additional work, NPS hired additional civilian personnel in Codes 04 and 02. (See Table 4.4). The majority of these additional hires' salaries are reimbursed by the POM under the ISAs at no cost to NPS. No increases in navy officers or enlisted

personnel were provided as a result of the additional work load. The appendix to the NPS/POM ISA, 1994, lists the positions hired and their salaries.

Table 4.4 Personnel Additions to NPS

Function	Personnel
Public Works (Code 43)	138
Firefighting	26
Others (Code 21 and Human Resource Office)	8
Total	172

Source: Interview with NPS Comptroller (Code 21), June 14, 1995

5. Other Interview Data

One of the themes noted in responses to interview questions from Codes 21 and 04 was the lack of coordination in managing ISAs. Code 21 mentioned the problem of Public Works not charging the job order that had been ear-marked for a specific purpose. Work under that job order would be accomplished, but it would be charged to some other job order or, in the worst case, NPS would absorb the cost.

Figure 4.2 illustrates the complex interdependencies required to properly manage ISAs. Presently, NPS does not have an overall manager or group that ties together the Public Works and Comptroller functions with respect to ISAs. What happens is that Code 04A and 21 are drawn in to solve problems when they go unchecked at lower levels. This is caused by Public Works staff assuming a certain set of circumstances and the Comptroller staff another set. The staffs end up pulling in opposite directions because there isn't a coordinating function within the two staffs.

Another theme that was consistent among Codes 04A, 21 and 43 was the feeling of being overwhelmed by the number of ISAs. Prior to the ISAs with the POM, managers (Codes 04A, 21 and 43) were able to stay on top of ISA issues. But, when the POM ISAs were established, so much more time was directed to the POM ISAs that other ISAs were beginning to become a burden on management. At management levels below Codes 43 and 21, the addition of the POM ISAs did not seem to be a major issue. There were numerous meetings and discussions to resolve issues when the ISAs were first established, but now the "overwhelmed" feeling seems to have dissipated at the lower management levels.

The coordination of funds in Code 04 was another concern of the interviewees. Code 04 has 10 other departments in addition to Code 43. Each of those departments has its own budget that is independent of the other departments. Code 04A has been dubbed the "money guy" for Code 04 and, as such, coordinates budgeting, accounting, and exercises internal fiscal review and control of the departments in Code 04. The concern on the part of Code 21 is that Code 04A doesn't have the time or manpower to properly coordinate the budgets for all eleven departments. Review of NPS' organization and regulations manual, NAVPGSCOLINST 5400.2C, provides little direction for the coordination of Code 04's department budgets. The only statement in 5400.2C that could be interpreted as addressing the budget issue is, "perform such other duties as may be assigned by the Director of Military Operations (Code 04)."

C. OBSERVATION DATA

The observation data I obtained was based on a meeting between NPS and the POM concerning the draft of the new ISA that Code 43 was developing. The POM's concern with the draft ISA (and I assume with the ISAs presently in place as well) was the assurance that NPS personnel for whom the POM was reimbursing NPS were actually working on POM projects. Code 43 pointed out that, even though the POM was paying for billets at NPS, at any given time POM reimbursable personnel could be working on NPS projects and NPS salaried personnel could be working on POM projects. It wasn't feasible for NPS to dedicate individual workers to either POM or NPS projects. The POM seemed reluctant to accept this explanation but, moved on to other issues in the draft ISA.

The above meeting was part of a series of regularly scheduled meetings between NPS and the POM. Table 4.5 lists the frequency and attendees of the ISA meetings between NPS and the POM. The monthly meetings discuss major issues with the ISAs and specific jobs that have commanded attention. The bi-weekly meetings discuss specific jobs and other issues related to job execution. The last several of the bi-weekly meetings have primarily discussed the new draft ISA. The weekly meetings discuss the schedule and performance of specific jobs.

Table 4.5 NPS/POM ISA Meetings

Frequency	POM	NPS
Monthly	Installation Commander Deputy Install. Commander Garrison Commander Deputy Garrison Commander Chief-of-Staff Resource Director Comptroller Command Sergeant Major	Code 04 Director of Military Ops. Code 04A Asst. Dir. of Mil. Ops. Code 43 Director Public Works
Bi-weekly	Deputy Garrison Commander Resource Director Comptroller Director of Public Works Asst. Dir. of Public Works Budget Technician	Code 04A Asst. Dir. of Mil. Ops. Code 43 Director Public Works Deputy Code 43 Asst. Public Works Officer Engineering Director Shops Director
Weekly	Director of Public Works	Code 43 Director Public Works Deputy Code 43 Asst. Public Works Officer Engineering Director Maintenance Control Director Shops Director Head of Production Control

Source: Interview with NPS Director of Public Works (Code 43), August 17, 1995

D. TIME STUDY DATA

Of the four NPS codes requested to do the time study, two responded, Codes 21 and 43. Figures 4.3 and 4.4 shows the raw data and the linear regression lines to indicate trends. Each code took a different approach to the time study. Code 21 started in August and ended in November. Code 43 started in October and ended in November.

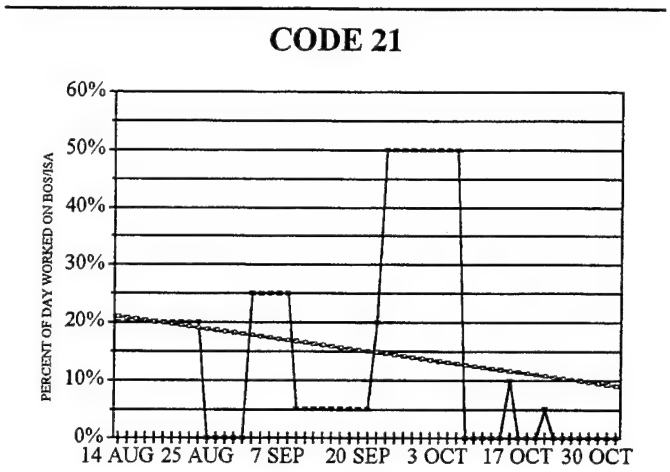

Figure 4.3 Code 21's Time Study Chart

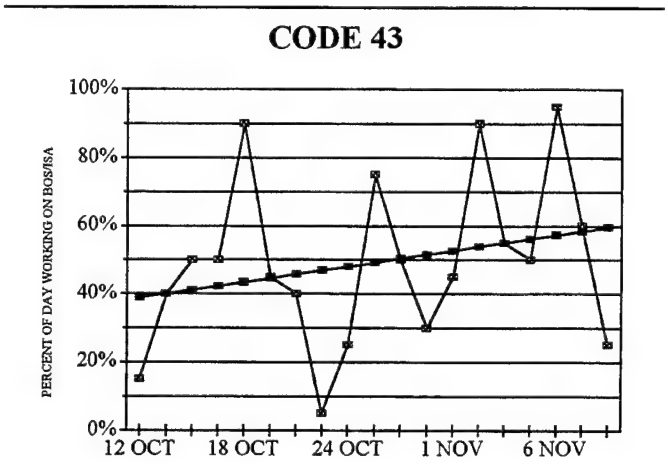

Figure 4.4 Code 43's Time Study Chart

Code 21's data indicates a decreasing trend in the amount of time devoted to ISA/BOS issues. This is most likely due to the abnormally large amount of "end of the fiscal year" work to ensure that funding for ISAs that was going to expire was obligated prior to

the new fiscal year and the relatively little work following the beginning of the new fiscal year. Code 21 probably started the time study before the end of the fiscal year to boost the number of hours it would show he was working on BOS/ISA issues.

Code 43's data indicates an increasing trend in the amount of time devoted to BOS/ISA issues. This is probably the result of the work involved in implementing the new Public Works POM ISA and his involvement with the implementation of new ISAs with other agencies. (See Table 4.1). It is apparent Code 43 is spending a considerable amount of his time working on BOS/ISA issues. On average, Code 43 is spending 50% of his day dealing with BOS/ISA issues with activities other than NPS. This figure is significant in that Code 43 stated in the interview data that, before the POM ISAs went into effect, he rarely was involved in BOS/ISA issues. In addition, Code 43's data is not influenced by the end of the fiscal year obligation requirements as Code 21's was. His study started well after the beginning of the new fiscal year.

Though no time study data was available for Codes 04 and 04A, the interview data indicates the same scenario as with Code 43. Prior to the POM ISAs, they spent little time on BOS/ISA issues; now large portions of their time are devoted to BOS/ISA issues. Based on Code 43's data, it is reasonable to assume Code 04 and 04A's time spent on BOS/ISA issues parallels Code 43s except at a lower levels of time.

E. SUMMARY

From the data, it is clear that NPS' role as a major command on the Monterey Peninsula has changed considerably. The military bases on the Monterey Peninsula have

become much more interdependent on one another as a result of the closure of Fort Ord and the assumption of BOS for the POM, the POM Annex, and other commands by NPS. NPS can no longer consider itself solely an academic institution; in addition, it has also become the focal point for BOS for federal, some state, and local agencies. The number and dollar amount of ISAs NPS presently administers are some of the largest in DoD. These figures will certainly increase as more federal, state, and local agencies occupy Fort Ord facilities.

NPS compensated for its increased BOS mission by hiring additional Public Works and Comptroller personnel to perform the line functions required to support the new ISAs. Even though the personnel hired were performing their duties well, confusion and coordination problems were becoming evident at upper management levels. From the interview data, Code 04A had the sense of being overwhelmed by the amount of involvement he was now having with BOS issues. Codes 04A and 21 expressed concern about the lack of coordination between the customer, Code 43, and themselves.

The observational data pointed out that NPS was having to respond to BOS issues from the POM at a much higher level of management than they had to with other BOS customers. All levels of Code 04 management were now attending regularly scheduled meetings with the POM to discuss BOS issues. This was compounding Code 04A's sense of being overwhelmed.

The time study data supported Code 21 and 43's claim of increased workload since the POM ISAs went into effect. Code 21's data showed a decreasing trend of time spent on BOS issues and Code 43's data showed and increasing trend. This divergent outcome, it

appears, was primarily due to the heavy end of the fiscal year workload by Code 21. After the start of the new fiscal year, Code 21's BOS workload slacked off considerably, which caused the downward sloping trend line.

V. ANALYSIS

The approach used in this chapter to analyze the data collected in Chapter IV is similar in format to the steps listed in Table 2.3 (Steps in Organizational Problem Analysis). The format is a systematic process that assesses the congruence or "fit" among the organizational components by analyzing the issues, the environment, the output, and the problems of the organization. From the fit analysis, a hypothesis is generated about what is the cause of the problems. The last step in this process is to identify possible alternatives to deal with the problems.

A. ISSUES

Three issues were identified from the interviews with Codes 04A, 21, and 43: the sense of being overloaded by Code 04A; unpredictability of tasks by Code 43; and the need for better coordination between the NPS codes and between those codes and the POM.

1. Overload

Code 04A's involvement in ISA issues has dramatically increased since the POM ISAs were established. He doesn't get involved in the day-to-day running of the ISAs but, instead, is drawn in to put out "fires" concerning BOS for the POM and other activities. Code 43, on the other hand, is involved in BOS issues on a daily basis. However, he has not expressed as strong a feeling of being overwhelmed but did indicate his time spent working on BOS issues has increased considerably since the POM ISAs were established.

2. Task Unpredictability

Prior to the POM ISAs, NPS for the most part dictated the customers BOS requirements. The majority of NPS' BOS customers were located on NPS grounds and, as such, NPS could integrate their support with its own. It was easy for NPS to predict its customers' responses to BOS issues. In fact, very little happened that NPS did not already know about. In the new situation, NPS has not been able to dictate the POM's BOS requirements. The POM, being a larger, well established command, demands a higher level of accountability and management attention on the part of NPS for its business. Thus, NPS must react to and process the POM's requirements much more frequently and rapidly than it had to with other activities.

3. Need For Coordination

When NPS was providing BOS to only tenant commands and a few off-base commands, there were minimum dependency problems between NPS departments. Few questions or problems arose that could not be handled at lower levels. Codes 04A, 21, and 43 rarely got involved with ISA issues. When the POM ISAs were established, coordination on BOS issues became a major concern of NPS because the POM was driving the issues that required a unified response from Codes 04A, 21, and 43. ISA issues were now being generated by senior Army officers and civilians, and, in response, NPS' senior Navy officers and civilians were having to respond in unfamiliar ways. Because of the need to be more coordinated and responsive, Codes 04, 21, and 43 suddenly became much more interdependent.

B. ENVIRONMENT

The environment in which NPS provides BOS to its customers has radically changed since the closure of Fort Ord. Prior to the closure, NPS provided BOS to its tenant commands and a few commands located off-base. All of the commands supported were much smaller than NPS and didn't pose a support problem. When Fort Ord closed, BOS functions for the POM shifted from Fort Ord to NPS. NPS was now faced with providing support to a command that was larger than itself. As a result, NPS BOS for family housing units doubled, the building square footage requiring support more than doubled, and the acreage nearly doubled.

The salaries of the public works staff and the comptroller staff who were hired by NPS to support the POM ISAs were being paid for by the POM. This provided the POM with a large amount of leverage to ensure NPS responded quickly, and at higher management levels, than NPS was accustomed to responding. The funding of approximately half of the Public Works workforce by the POM placed new demands on NPS to ensure obligations were properly charged to the correct accounts. NPS was now having to demonstrate at higher levels of management that funds were being properly allocated. This requires additional coordination efforts on the part of Codes 04A, 21, and 43. With the other ISAs NPS supports, funding issues are usually handled at lower levels of management; and Codes 04A, 21, and 43 involvement is slight.

When Fort Ord closed, state, federal, and other DoD activities took up residence in the vacated buildings. This has the potential for increasing the ISA workload on NPS. For

example, a Defense Finance and Accounting Service (DFAS) center moved into the Silas B. Hayes hospital building and established an ISA with NPS that is funded at over $700K. This was an unexpected ISA that was a direct result of Fort Ord's closure.

The number and type of activities NPS has the potential to provide some level of BOS to is immense and the probability is high that the number of activities for which NPS provides BOS will increase in the future. (See Appendix E). With this potential increase, NPS' coordination and responsiveness will have to improve in order to maintain control and provide support for all its various BOS customers.

C. PROBLEM IDENTIFICATION

For NPS' BOS/ISA management, effectiveness is difficult to quantify. Effectiveness could be measured in terms of customer satisfaction, number of jobs orders completed, time managing ISAs, etc. From the data, customer satisfaction did not appear to be a major issue with the POM or other commands supported by NPS. BOS job orders increased significantly since the POM ISAs went into effect, but the workforce was also increased to compensate for the increased work. There is no indication from the data that the percent of job orders completed compared to the total number of job orders has changed significantly since the POM ISAs went into effect.

The one area that has changed significantly since the POM ISAs went into effect is the amount of time and effort Codes 04/04A and 43 put into managing BOS/ISA issues. Prior to the POM ISAs, Codes 04/04A and 43 were basically kept informed of the status of BOS/ISA issues. Now they are involved in biweekly and monthly meetings to specifically

discuss BOS/ISA issues, and they have reluctantly become the point-of-contact for BOS/ISA issues raised by the base and garrison commanders at the POM.

The significant problem Codes 04/04A, 21, and 43 face is the aggregate effect numerous ISAs are having on their ability to properly manage the ISAs. The codes were able to handle the management task prior to the POM ISAs, but after the POM ISAs went into effect the management of ISAs suddenly came to the forefront, overshadowing the management of NPS itself.

Another problem the codes face is the growing complexity of managing ISAs over a wide variety of organizations. With the potential for more ISAs on the horizon, the symptoms of overload, task unpredictability and the lack of coordination will not diminish. NPS must be able to adjust the way it manages individual ISAs based on the customer's environment. NPS needs to develop a relationship with each of its customers that is dependent on the customer's individual needs. To develop this relationship, NPS management will have to allocate more time and effort to this process.

D. FIT ANALYSIS

Codes 04/04A and 21 operate as functional organizations. (See Figures 1.1 and 1.2). Nearly all accounting functions come under the Comptroller, and base operations under the Director of Military Operations. According to Galbraith (1995), there are several advantages to this type of organization structure. First, all workers of one type are gathered together under one general manager. This allows the workers to transfer ideas and knowledge among one another. Second, a greater level of specialization is obtained by dedicating some of the

workers to specific jobs, such as BOS, in their functional areas. Third, fewer pieces of expensive equipment would be needed due the concentration of users' ability to share within the functional area. Another advantage of the functional organization structure is the standardization and reduced duplication. One system or one policy is adopted for everyone, rather than having each department develop its own.

Galbraith (1995), also points out that the functional organization structure has two major weaknesses. First, when an organization expands to provide several different services to multiple customers, the variety overwhelms the decision-making capacity of the general manager and his functional team. Second, barriers are created between different functions, inhibiting cross-functional processes. This weakness becomes apparent when speed and time constraints are part of the environment in which the organization operates.

Thus, a functional organization structure is appropriate for organizations with a small stable customer base that requires few services. NPS' BOS environment could have been characterized as small and stable prior to Fort Ord's closure and the establishment of the POM ISAs. Subsequent to Fort Ord's closure, NPS' environment has changed dramatically. The ISAs developed with the POM are some of the largest ISAs in DoD, and ISAs with organizations moving into Fort Ord buildings have been established or are in the process of being established. Because of the changing environment and growth in customers and workforce, Code 04's organizational structure no longer provides the best fit for its mission.

The cause of the issues and problems appears to stem from NPS' underestimation of the effect the increasing number of ISAs would have on its ability to manage BOS

agreements. From the data, NPS' estimation of the number and type or workers required to support the POM ISAs seems to fit the amount of new work generated. However, the effect the additional ISAs would have on Codes 04's organization structure were not taken into account when the POM ISAs were being established.

E. ALTERNATIVES

The challenge Code 04/04A faces is to coordinate cross-functional work flows among themselves, Code 21, and Code 43. To assist Codes 04/04A, linking mechanisms need to be established to coordinate the lateral processes across the functional departments. The lateral processes can be thought of as the mechanisms for the decentralization of general management decisions (Galbraith, 1995).

The types and amounts of linking mechanisms used will vary with the relative importance of environmental factors such as the following: **diversity** of services performed; how **rapidly change** is occurring in the environment; the **degree of interdependence** required between functional units and the speed with which work needs to be accomplished; and the **amount of management time and energy that** must be invested in the linking mechanisms.

From the data and analysis, NPS is experiencing major increases in three of the four environmental factors listed above. The diversity of NPS' BOS services has not radically changed from before Fort Ord's closure to the present. Though the amount of BOS services has increased considerably, the uniqueness of the service has not increased. BOS for NPS is similar to BOS for the POM and the other activities. The other three areas, rapid changes in

the customer base, the degree of interdependence among NPS departments, and the speed with which work needs to be accomplished has increased since the POM ISAs went into effect.

Using overly complex mechanisms will be too costly and inefficient, while using too simple a linking mechanisms will not solve the problem. The choice of linking mechanisms should then be based on work-related interdependence. The more complex linking requirements require more complex formal linking devises, and the simpler linking requirements require simpler linking mechanisms.

1. Options

As noted in the literature review, Codes 04, 21 and 43 have several alternative linking mechanisms for structural change. (See Table 2.7). The hierarchal structure is the linking mechanism that exists at present. However, the data points out that the growth in size and scope of their BOS mission has overwhelmed their decision making capacity. For purposes of this thesis, the hierarchal structure will not be considered as an option.

a. Liaison Individuals

When a considerable amount of contact is necessary to coordinate the work of two units, a "liaison" position may be established to route information directly, bypassing the vertical channels (Mintsberg, 1983). Liaison individuals are point men of their respective departments. They serve as sources of information and expertise for problems and as contacts and advisors on issues that affect their departments. The liaison role is usually not a full-time responsibility but, rather, is done in conjunction with other duties. (See Figure 5.1).

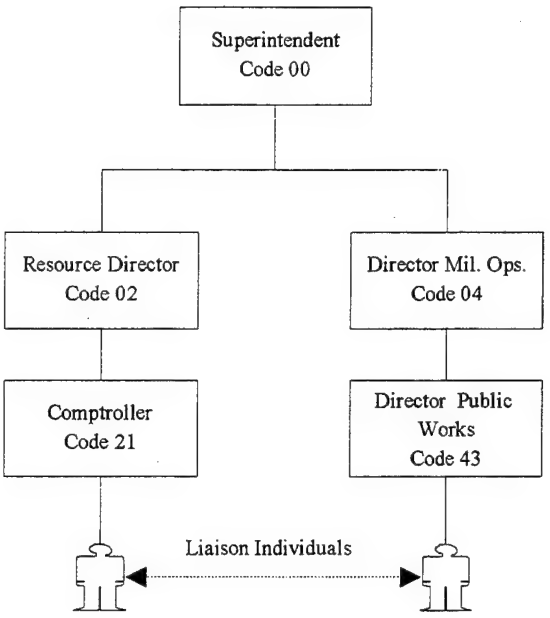

Figure 5.1 Liaison Individuals (After Nadler and Tushman, 1988)

b. Cross-Unit Groups

Cross-Unit groups meet to focus on specific issues, clients, and/or problems. The groups can be permanent, temporary or ad hoc. Their objective is to ensure that pertinent expertise comes together to deal with their assigned task. Compared with liaison individuals, cross unit groups provide a broader base from which to exchange information. (See Figure 5.2).

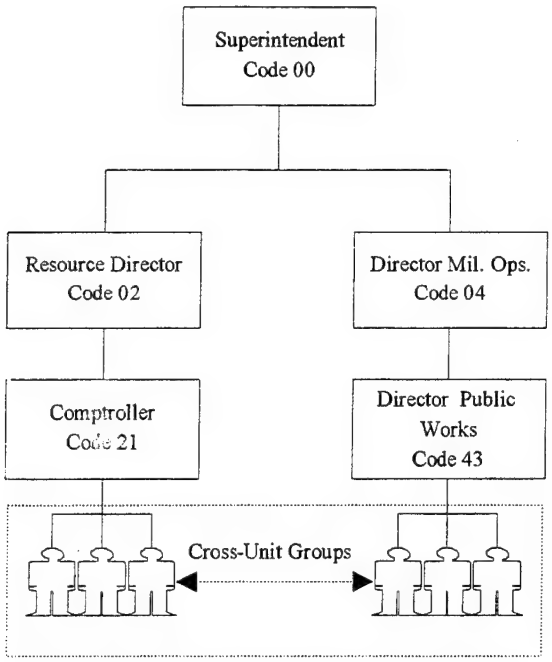

Figure 5.2 Cross-Unit Groups (After Nadler and Tushman, 1988)

c. Integrator Roles

Integrators are used to bring the general manager's perspective to the functional manager, who in turn focuses the expertise needed to deal with the task/problem. While integrators report to senior management, they usually don't posses the authority to direct the functional managers. (See Figure 5.3). Because of this lack of authority over the functional managers, integrators must rely on their expertise, interpersonal competence, and team and conflict-resolution skills to shape the efforts of the functional manager (Nadler and Tushman, 1988).

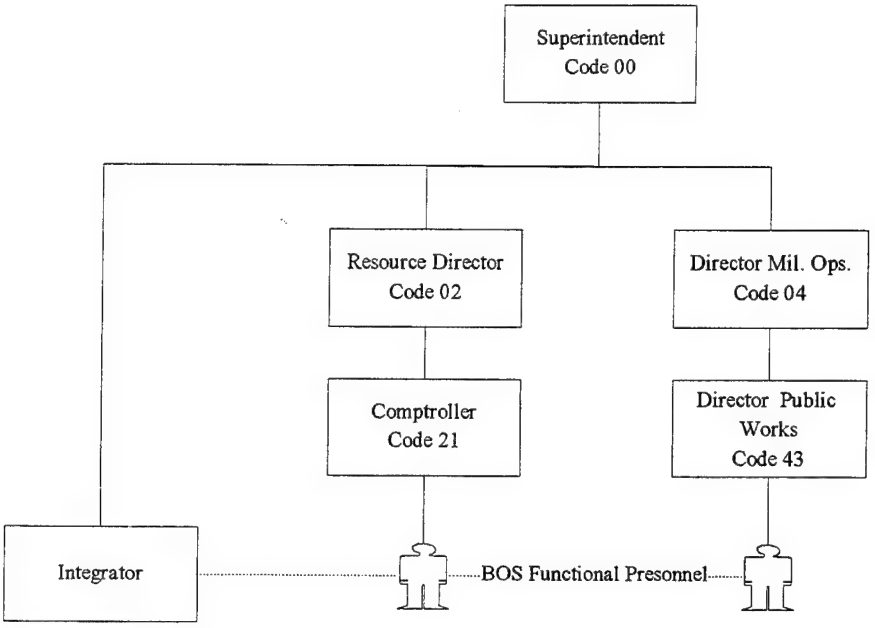

Figure 5.3 Integrator Role (After Nadler and Tushman, 1988)

d. Matrix Organization

Matrix organizations are appropriate when there is an enormous amount of information processing requirements. In organizations where the tasks are highly interdependent, competing pressures from the functional sides can create a situation beyond the structural capability of an integrator to handle. The matrix organization has two chains of command in order to handle complex processes, one to deal with the functional side and the other to deal with the project side. For example, if the POM ISAs require a considerable amount of management that draws effort away from all other ISAs, the organization could establish separate projects, one for POM ISAs, and one for all other ISAs. (See Figure 5.4).

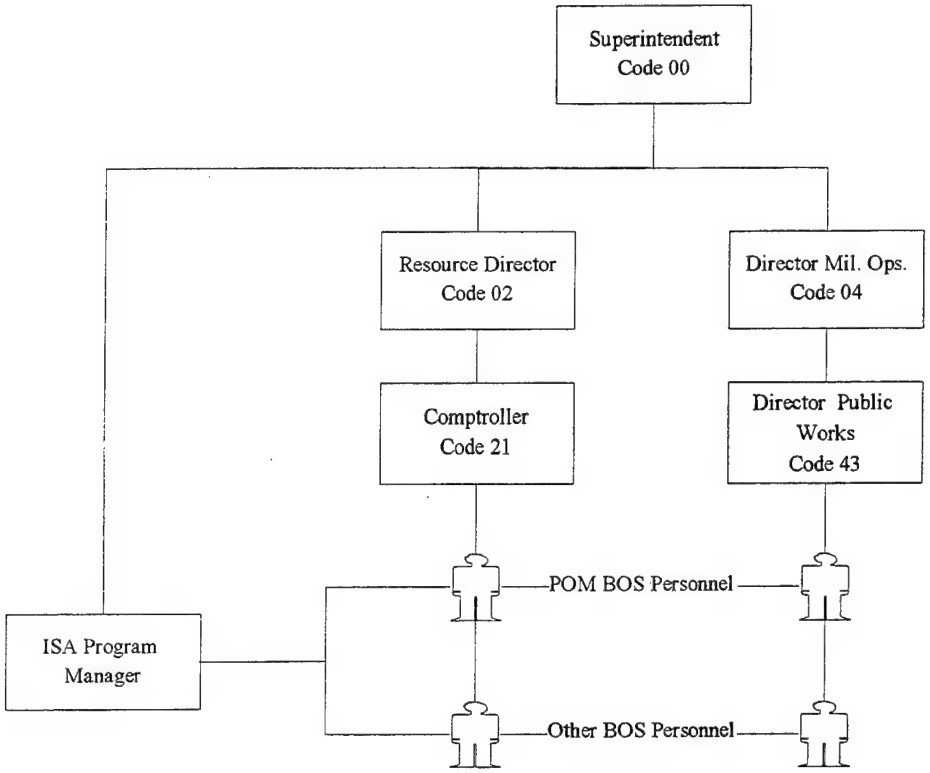

Figure 5.4 Matrix Organization (After Nadler and Tushman, 1988)

2. Strengths and Weaknesses

a. Liaison Individuals

The strengths of liaison individuals are the zero costs involved in establishing the liaison and the simplicity of the structure. The liaison individuals pick up the liaison role as an additional duty. Because its considered an additional duty, there usually is no additional requirement for office space or equipment. Liaison individuals can be thought of as an extension of the informal organization that exists in all organizations.

One major weakness is the lack of authority to back up any decisions made. Liaison individuals are usually lower-level management types who only pass detailed information about their specific functions; no one individual has full authority. Additionally, no formal arrangements are made between the liaison units to establish lines of authority; and, the decision process remains at the functional manager level. This would not alleviate Code 04A's involvement in BOS/ISA issues.

b. Cross-Unit Groups

The major strength of the cross-unit groups is the minimal cost involved in establishing the groups. Similar to liaison individuals, groups meet for specific task related purposes in addition to their regular functions. Groups provide a more extensive forum for information exchange, coordination and conflict resolution than liaison individuals.

The major weakness of cross-unit groups is the lack of a strong central authority or accountable person. Groups are formed from similar levels across functional areas to work as a team. The establishment of an authority figure could sway the output of the group in favor of the leader's functional area; decision authority usually remains with the functional managers. Groups function at levels that normally do not act on major issues without higher management involvement. Another possible weakness is that groups can become institutionalized and meet on a more permanent basis. In this situation, there can be a cost associated with this structure because time spent in groups is time not spent at their regular functions. Overtime and/or temporary hires may be required to perform the regular functions of the members of the cross-unit groups when the group's tasks require large

amounts of the member's time. It is beyond the scope of this thesis to provide estimates of of the amount of time cross-unit groups would require to solve problems.

c. Integrator Roles

A major strength of integrators is that one individual has responsibility for the overall project. With this organization structure, responsiveness to issues is ensured. The integrator reports to only one individual, thereby developing strong communication channels that result in very rapid response times, and the integrator has the ability to integrate among the functional disciplines. The integrator also handles all conflicts concerning the project with little functional management involvement.

The major weakness of the integrator role is the cost of maintaining the organization structure. Hiring an integrator will require incurring an additional salary expense. From the interview data, Codes 21 and 43 indicated the position should be filled by a civilian and not a military person. Codes 21's reasoning for having a civilian fill the position was to maintain corporate knowledge of the function over longer periods of time than would be possible with a military person. Code 43's reasoning was that it would be more difficult to obtain an additional military billet due to the current draw down in military personnel. Both responses are valid reasons for picking a civilian integrator.

Discussions with Codes 21 and 43, and the Human Resources Office (HRO) on the grade of the integrator indicated a GS-12 would be the appropriate grade based on the functions and interaction levels the position would require. Given the position is a GS-12,

the cost to NPS for the salary and fringe would be approximately $69,106[8]. In addition to the salary expense, resources such as office space, desks, chairs, computer and printer, filing cabinets, telephones, and various administrative supplies will be needed to adequately staff the integrator organization structure. Given that only the office space is available at no cost, an additional $3,500 to $4,500 would be required to support the new position. It should be pointed out that the $3,500-$4,000 is for the most part a one time cost. The availability of excess furnishings and equipment could significantly reduce the cost of establishing this position.

One other weakness of the integrator position is the potential lack of job stability. If the integrator roll were established for a particular project, when that project was completed, there might not be another project waiting.

d. Matrix Organization

According to Przemieniecki (1983), there are several strengths of matrix organizations. They allow an organization to meet demands from more than one sector of the environment simultaneously. The matrix structure enables the pursuit of technical excellence while maintaining strong leadership of the project and keeps the decision authority down at a lower level in the organization. It also allows for the flexible use of limited resources. As a project's demand for functional specialists changes, there is a ready pool of

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[8] The salary is based on an GS-12 grade at the step five level using rates effective January 1995. The salary and fringe cost is computed at 1.43 times the base salary of $48,326. Step five was used because it is the middle of the pay scale. Using a lower step will reduce the cost of the salary.

individuals from which to draw resources or return resources. Related to the first strength, the matrix organization also has a great amount of flexibility in meeting changes imposed by the external environment. If the project has to start immediately or ends abruptly, it saves the hiring and firing that can accompany the purely functional structure. Additionally, there are opportunities to foster skill development in both the functional and general management areas, which forces management to look more at the big picture in providing training and skill development.

As with the integrator role, the major weaknesses of the matrix organization focus on the costs involved in maintaining the organization structure. Matrix organizations require dual lines of authority to handle the enormous and complex processes that result from the size and number of ISAs.

In a matrix organization, the program manager has directing responsibilities over functional types that the integrator does not. Because of these directing responsibilities, the program manager's grade level should be equal to or greater than the grade level of his functional manager counterparts. As such, the ISA Program Manager's grade level should be at the GS-13 level. Having a program manager with a lower grade level, like the integrators', will cause a power imbalance between the ISA Program Manager and the functional managers. This will reduce the effectiveness of the program manager's dealings with the functional departments.

Assuming a grade level of GS-13 the cost to NPS for the salary will be approximately $82,176[9]. In addition to the salary expense, like the integrator, the program manager will need office space, desks, chairs, computer and printer, filing cabinets, telephones, and various administrative supplies. The cost of these items, $3,500 to $4,500 is the same as it would be for the integrator. Also, this cost would be a one time cost and the availability of excess furnishings and equipment could significantly reduce this cost further.

Other weaknesses are the conflict and confusion that may accompany a dual authority system. Managers in the functional department who are involved in a project that has a project manager have to report to two bosses- the functional boss and the project manager. The amount of time necessary in coordinating meetings between project and the function personnel grows with the complexity of the project. With the increased management oversight, employees become confused when they receive conflicting direction from the two managers. Because of the complex structure of the matrix, employees need training on handling and resolving conflicts. Maintaining the power balance between the project and functional areas is also a challenge. Depending on the Superintendent's preferences, the balance of power between the project and functional managers can be difficult to maintain.

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[9] The salary is based on an GS-13 grade at the step five level using rates effective January 1995. The salary and fringe cost is computed at 1.43 times the base salary of $57,466. Step five was used because it is the middle of the pay scale. Using a lower step will reduce the cost of the salary.

e. Summary

In Chapter VI the strengths and weaknesses of each of the options listed above will be evaluated to formulate a recommendation to Code 04 on what the best organization structure is for managing BOS/ISA issues. Table 5.1 summarizes the strengths and weaknesses of each option.

Table 5.1 Summary of Structural Option's Strengths and Weaknesses

	Strengths	Weaknesses
Liaison Individuals	- Zero cost. - Simple to establish	- No authority to backup decisions. - No one person is accountable. - Decision authority remains with functional managers. - Limited information exchange capacity.
Cross-Unit Groups	- minimal cost. - broader information exchange than liaison individuals.	- No strong central authority. - No one person is accountable. - Decision authority remains with functional managers.
Integrator Roles	- Responsiveness to issues. - Rapid reaction time. - Integrated facilities between functions.	- More costly than the previous options. Yearly salary of $69,106 and a start up cost of $3,500 to $4,500. - Ill-defined career progression.
Matrix Organization	- Manages dual environment demand. - Flexible use of limited resources. - Adaptability to environmental changes. - Fosters skill development and training.	- Most costly option. Yearly salary of $82,176 and a start up cost of $3,500 to $4,500. - Conflict and confusion. - Time consuming. - Special training required. - Difficult to maintain power balance.

Source: Przemieniecki, 1993

VI. SUMMARY, RECOMMENDATIONS & CONCLUSIONS

A. SUMMARY

Subsequent to the closure of Fort Ord, NPS' workforce rapidly expanded to assume the POM's BOS functions that Fort Ord previously provided. The rapid expansion in workforce, coupled with NPS having the POM (a command larger than NPS) as a customer, created new and different management requirements for Codes 04/04A, 21, and 43. Feelings of being overloaded were expressed by Codes 04A and 43, the two directors most heavily involved with POM BOS. In addition to their normal managerial tasks, these codes were now having to spending large amounts of their time managing the POM's BOS. Coordination among the codes in response to BOS issues became a problem as dealings with the POM were happening at the highest levels of management. BOS issues with other activities with which NPS had ISAs rarely required Codes 04/04A's involvement. Now, regularly scheduled monthly meetings with the POM on BOS issues required the attendance of Code 04, 04A, and 43. This created a stronger need for interdependence than the codes were accustomed to.

At Fort Ord, vacated buildings were beginning to be occupied by various federal, state and local agencies. The number of agencies moving into Fort Ord facilities continues to increase as more facilities are turned over from the Army. The potential exists for the number of ISAs NPS manages to increase considerably in the future. The environment NPS is operating in is one of expanding BOS responsibility with an uncertain leveling-off point.

As the aggregate number of ISAs NPS manages increases to include many different types agencies, the scope and variety of services provided will increase as well. This will compound the complexity of managing the services provided, as well as tracking the costs and funds available for individual ISA jobs.

Based on the data and the analysis, the Code 04 organization has experienced a shift in its environment. The catalyst for the shift was the establishment of the ISAs with the POM subsequent to Fort Ord's closure. NPS adjusted its workforce to compensate for the increased mission, but it underestimated the effect the growth would have on upper management's involvement with the POM ISAs. The established interdependence between Codes 04/04A, 21, and 43 was no longer sufficient for the demands the POM was placing on NPS. Codes 04A and 43 became overloaded with the volume and complexity of BOS management decisions they were facing.

The organizational structure no longer provided the best fit between the codes internally or with their BOS customers. What Codes 04A and 43 need is a structure that is capable of making BOS management decisions at a lower level than what is presently happening. The structure also needs to be able to facilitate coordination between Codes 21, 43, and the customer.

B. RECOMMENDATIONS

1. Structure

Chapter V discussed several options for the type of structure that would be suited for Code 04's organization. Based on the complexity and continuing growth in NPS' BOS

functions, Code 04's best option is to establish an integrator (referred to as an ISA Manager from here on) that reports to Code 04. Figure 6.1 is a representation of what the recommended structure would look like.

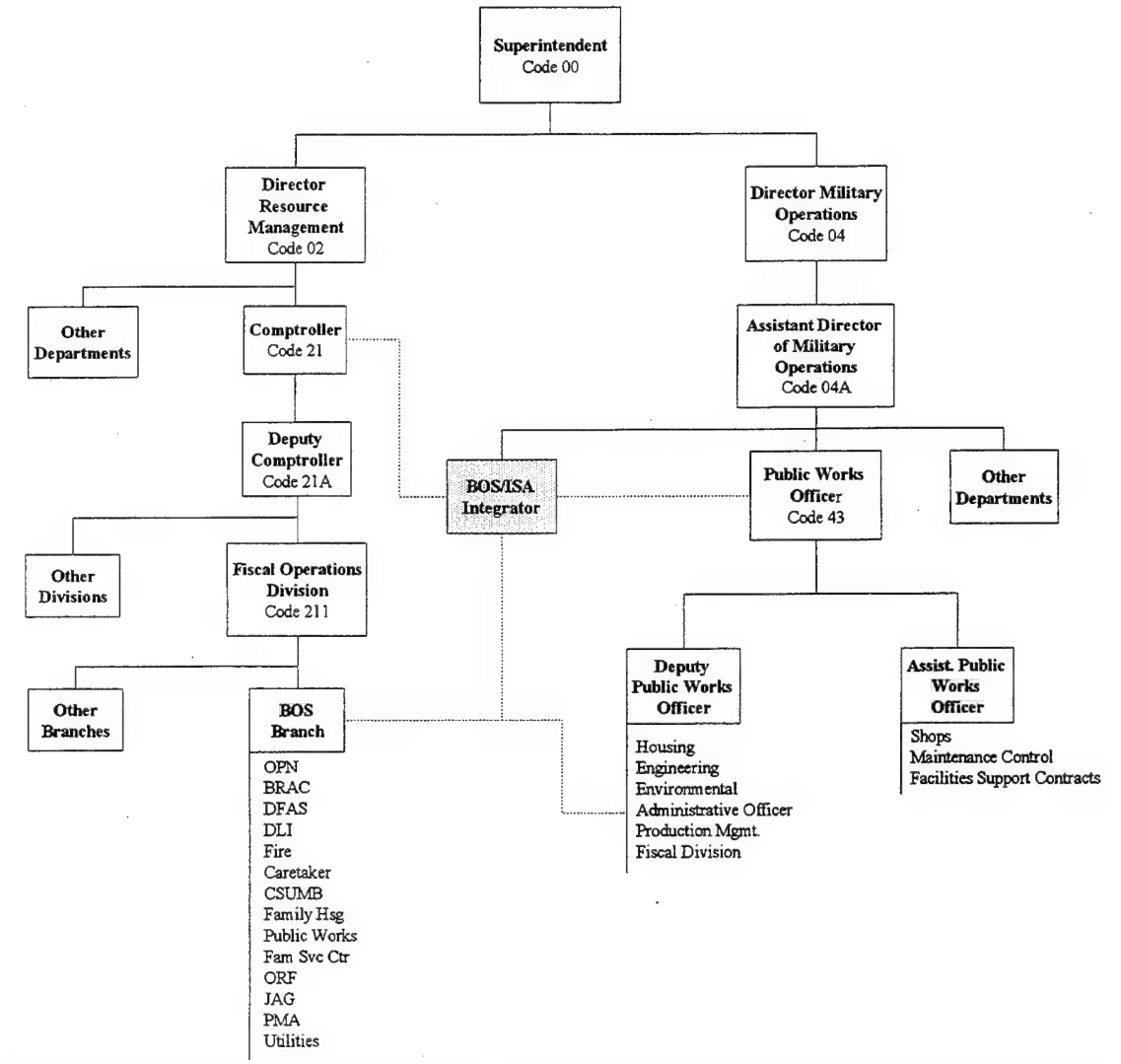

Figure 6.1 Recommended Structure (Interviews with Codes 21, 04A, and 43 by author on various dates)

The solid line from Code 04A to the ISA Manager represents the line of authority. The ISA Manager will be part of Code 04's organization. The placement of the ISA Manager in Code 04's organization does not fit the standard integrator structure as depicted in Figure 5.3. In a more standard arrangement, the ISA Manager would come under the Superintendent. However the ISA Manager is placed in Code 04's organization because Code 04 functions in the same capacity as a base commander who is responsible for all aspects of base operations, including BOS provided to other commands. The Code 04 organization is the point-of-contact for other departments and other commands when they have issues concerning military operations. From a functional alignment stand point, it makes better sense to place the ISA Manager under Code 04. The dotted lines in Figure 6.1 represent the linking mechanisms the ISA Manager needs to establish to coordinate ISA functions. The lines shown are recommended as a result of discussions between the author and Codes 21 and 43. The areas where the lines are connected represent the most direct paths the ISA Manager has for gathering ISA information. However, the dotted lines are only an initial estimate of where the ISA Manager needs to concentrate his or her coordination efforts. As the ISA Manager settles into position, other lines of communication are certain to develop at various levels of complexity.

Not shown in Figure 6.1 is the link the ISA Manager has to the ISA customers. The ISA manager will also need to establish communication links with all of NPS' ISA customers. The complexity of the links will be determined in large part by the ISA. Because a customer

has a large reimbursable cost doesn't necessarily mean the ISA Manager will need to spend a great deal of time with it. The type of BOS provided and the environment the customer operates in will be the largest determinants of effort required by the ISA Manager. Customers who have relatively routine BOS requirements and a stable environment will probably require less effort to manage than customers whose BOS requirements are unpredictable. If the customer's environment is rapidly changing, this can also increase the effort required by the ISA Manager due to the potential for task unpredictability and need for quick responses to fluctuating requirements.

It should be noted that the integrator role can not operate as the only type of communication link between Codes 21, 43, and the customer. The informal organization structure that exists between Codes 21, 43, and the customer needs to continue to exist.

a. Strengths

The ISA Manager enables decisions to be made at lower levels, thus reducing the management decision requirements of Codes 04A and 43. Another strength is that the ISA Manager is at the crossroads of several information streams. For example, what might appear to be interesting information but worthless to Code 43 may be a valuable piece of information to the comptroller staff. This enables the ISA manager to act like a nerve center for ISA issues. By identifying these situations and following through with them, the ISA Manager performs useful functions for the departments. Another advantage of the ISA Manager performing like a nerve center is the improvement in coordination between Codes 04A, 21, and 43.

The other options, such as liaison individuals and cross-unit teams, don't provide full-time attention to ISA issues nor do they reduce upper management's decision making involvement. From the data and analysis, it is apparent that the growth in the number and size of ISAs NPS manages requires full-time attention to manage effectively. Another reason for not choosing these options is that no one individual is accountable or a point-of-contact for ISA issues. Problems or differences that arise between departments can result in a breakdown in information processing and lead to costly delays in processing work.

The matrix organization structure is too complex and some what more costly (GS-13 instead of a GS-12) for NPS to consider at this point in time. Using a matrix organization structure would require the ISA Manager position to be under the Superintendent vice being under Code 04, as the integrator would be. (See Figure 5.4). The ISA Manager in a matrix organization would have authority over functional personnel in both Codes 21 and 43. Having the ISA Manager under Code 04 and directing personnel in Code 21 would create undue influence by Code 04 on Code 21's operations. However, if NPS continues to become the focal point on the Monterey Peninsula for government agencies to draw support from, there could be a time when the matrix structure would be the better choice.

b. Weaknesses

Since Code 04 has no direct authority over the Comptroller, the ISA Manager has no power base with respect to the Comptroller. This could create tensions between Code 04 and the Comptroller if the ISA Manager makes decisions that the Comptroller feels are not

in his department's best interest. Though this is a potential weakness, it should be pointed out that the interview and observational data did not reveal any serious problems in this area.

Another weakness of the ISA Manager function is that it is dependent more on a healthy informal organization. As the linking mechanisms become more complex, they actually build on organization conflict (Nadler and Tushman, 1988). The informal organization needs to be able to handle ambiguity and conflict that is associated with more complex linking mechanisms.

The most pertinent weakness of the ISA Manager structure is its cost. Adding an ISA Manager requires the hiring of an individual, establishment of office space, and the use of office equipment. The cost of office space and equipment can be relatively insignificant, assuming no cost for the office space and the availability of excess equipment. The salary on the other hand is significant.

Given the position is a GS-12, the cost to NPS for the salary and fringe would be approximately $69,106. As discussed earlier, one of the major weaknesses of the integrator structure is the cost. NPS has a couple of options from which it can choose to fund this position. The options are that NPS can pay for 100% of the salary or NPS could develop a cost reimbursement schedule for the activities NPS has ISAs with. A recommendation would be to use Figure 4.1's reimbursable dollar percentages as a base for assigning the ISA Manager's salary costs to each of the ISA customers. Table 6.1 illustrates the cost schedule.

Table 6.1 Reimbursable Cost Schedule

Commands	Percentage	Salary & Fringe	Reimbursable Cost
POM	58.50%	$69,106	$40,427
DMDC	17.20%	$69,106	$11,886
DRMI	11.80%	$69,106	$8,155
FNOC	5.90%	$69,106	$4,077
DFAS	2.90%	$69,106	$2,004
Others	3.70%	$69,106	$2,557
Total	100.00%		$69,106

Since the "Others" percentage of the table is made up of many commands with small ISAs, NPS could assume their costs. Another recommendation would be for NPS to fund 50% of the salary and the remaining 50% by the ISA customers. The number of ways NPS could be reimbursed for the salary cost is endless. But NPS must be able to justify in quantifiable terms the reasoning behind the schedule chosen. An argument can be made that the commands NPS has ISAs with should share in the cost of the ISA Manager's position. After all, the ISA Manager is there to coordinate all aspects of the ISA, which is in the best interests of NPS and its ISA customers.

2. ISA Manager Functions

Galbraith (1973) said the integrator's function is not to make the best decision but to see that the best decision gets made. NPS' ISA Manager needs to do both. One of the primary functions of the ISA Manager will be to assume the majority of ISA management

decisions from Codes 04A and 43. Specifically, the Manager should be responsible for preparing ISAs using information provided by Code 43 and 21, coordinating negotiations and approvals, and administering their execution, review and eventual termination if appropriate. As such, the ISA manager needs to be knowledgeable about public works and comptroller functions. The ISA Manager must have a good working knowledge of the capabilities of the Public Works Department. He or She must have an understanding of what constitutes a minor and specific job order, and be familiar with direct and indirect costs pools. To be effective, he or she must be able to listen to Public Works issues and restate them in "comptroller talk" and vice versa.

The ISA Manager's effectiveness is a function of how much influence he or she has over the functional areas. If functional personnel do not work for the ISA manager, how does he or she exercise influence? Having expert knowledge on comptroller and public works issues is one way of providing the ISA Manager with considerable influence. However, when the goals and objectives of Codes 04 and 21 diverge, expert knowledge is of little use. The ISA Manager must be able to influence the functional codes regardless of circumstances.

Codes 04 and 21 can increase the ISA Manager's influence by increasing the manager's formal position power. Galbraith (1973) describes three processes that can increase the integrator's position power. The first process is to ensure the ISA Manager is put into the decision making process. For example, when budgets are being prepared, the ISA Manager could have a chop on the budget areas that affect ISA/BOS issues. He or she might be in the position to suggest some interdepartmental tradeoffs which can not be seen

from the Code 04/21 perspective. The second process would be to ensure the ISA Manager is in the planning process. The earlier the ISA Manager enters into the planning process the greater the influence he or she will have on the final outcome. It will allow the manager to initiate tasks and/or changes more easily if the planning process begins with him or her. Finally, if considerable position power is needed, the ISA Manager could be given control of the budgets involved with BOS/ISA issues. Funding would flow through the ISA Manager into the departments. In effect, the ISA Manager would buy resources from the departments.

It should be stressed that the three processes listed above are designed to empower the ISA Manager. If the relationship the ISA Manager has with Codes 21 and 43 does not indicate additional empowerment is required, these processes do not to be implemented. However, if Code 04 feels they are necessary, he will have to negotiate with Code 21 to determine the amount of position power the ISA Manager should have.

C. CONCLUSIONS

The primary research question this thesis addressed was how Code 04's organization should be restructured to better manage BOS for the POM and other supported activities. The secondary research questions dealt with how restructuring would affect available resources and how much would it cost.

To answer the research questions, a literature review and research data were used as a basis to analyze several restructuring alternatives. The strengths and weaknesses of each alternative were compared and analyzed to determine what alternative would be the best fit for Code 04's organization at the present time. From the data and analysis, it was

recommended that Code 04's organization develop an ISA Manager position under Code 04A. (See Figure 6.1). The ISA Manager would function as an integrator for accounting and public works issues that relate to NPS' ISAs. The ISA Manager position, as recommended, would not have authority over accounting and public works functional personnel but, instead, would coordinate their efforts in order to make the best decisions possible.

The resources needed to fund the ISA Manager position were (1) a salary based on a GS-12 grade at the step five level and (2) office space and equipment needed to establish the new position. To mitigate the cost of the salary, a reimbursable cost schedule was developed that would distribute the cost of the ISA Manager's salary across the commands NPS had ISAs with. To reduce the cost of establishing the office, excess space and equipment could be obtained from sources within NPS. Depending on how NPS distributes the cost of the salary and the availability of excess equipment, the cost to NPS for the restructure could range from minimal to full cost.

This thesis presented Code 04 with recommendations to solve organizational structure problems that evolved from the closure of Fort Ord. The recommendations take into account the varying degrees of interdependencies that exist between the codes and between the codes and BOS customers. Cost was also a factor in determining the right structure for Code 04.

Implementing the ISA Manager position will reduce Codes 04A and 43's level of involvement with ISA issues - thus easing the overload conditions described in the interview data. Improvement in coordination is another outcome from implementing the ISA Manager position.

The ISA Manager will be at the crossroads of information flows that will aid Code 04 in making the right decisions at the right time.

D. OTHER AREAS OF POSSIBLE RESEARCH

An area that has not been addressed is the possibility of having the POM's BOS be provided by commercial activities rather than NPS. The 1993 BRAC Commission recommended looking at either NPS or commercial activities to provide the POM with BOS. Reviewing the possibility of having commercial activities provide the BOS has been set aside. The research question would focus on determining if all or part of the POM's BOS could be performed by commercial activities at a lower cost than NPS can provide the BOS.

Another area of research would be to analyze Code 04's organization to determine if a requirement exists for some level of centralized budget control within Code 04. Responses to interview questions about problem areas indicated budget control within Code 04 was an issue. Presently, Code 04A himself is coordinating the budgets of Code 04's 11 departments. Perhaps Code 04A needs some assistance with his budget effort.

APPENDIX A. LIST OF ACRONYMS

BOS ..... Base Operations Support

BRAC ..... Base Realignment and Closure Commission

BRDENTAL ..... Branch Dental Clinic

CSUMB ..... California State University at Monterey Bay

DFAS ..... Defense Finance and Accounting Center

DHRSC ..... Defense Health Resources Study Center

DIS ..... Defense Investigative Service

DLI ..... Defense Language Institute

DMDC ..... Defense Manpower Data Center

DRMI ..... Defense Resource Management Institute

FLENUMMETOCCEN ..... Fleet Numerical Meteorology and Oceanography Center

ISA ..... Interservice Support Agreement

NCIS ..... Naval Criminal Investigative Service

NOAA ..... National Oceanic and Atmospheric Administration

NRL ..... Naval Research Laboratory

NAVSECGRUDET ..... Naval Security Group Detachment

NPS ..... Naval Postgraduate School

OPN ..... Other Procurement, Navy

PERSERREC ..... Defense Personnel Security Research Center

POM . . . . . Presidio of Monterey

PSD . . . . . Personnel Support Activity Detachment

ROICC . . . . . Resident Officer In Charge of Construction

TRADOC . . . . . Training and Doctrine Analysis Command

APPENDIX B: TERMS AND DEFINITIONS

Commercial Activities Study (CA). CA researches the possibility of commercial businesses assuming the activities presently performed by federal government agencies.

Director of Military Operations (Code 04) Basic Functions. Functions in the same capacity as a naval station commander in the direction of commanding military operations, the management of the command "physical plant," and the provision of all non-academic services and support to the command. These services include administration, military personnel services, security, public affairs, moral welfare and recreation, BOQ/BEQ, supply, communications, fire protection, public works, chaplain services, the Commissioned Officers' of the Faculty Club, and the Family Service Center (NAVPGSCOLINST 5400.2C).

Interservice Support Agreement (ISA). Support provided by one DoD activity to a DoD activity of another Military Service or Reserve Component, Defense Agency, Unified Combatant Command, Air National Guard, or Field Activity.

Memorandum of Agreement (MOA). Memorandums that define general areas of conditional agreement between two or more parties - *what one party does depends on what the other party does (e.g., one party agrees to provide support if the other party reimburses for the support)*. MOAs that establish responsibilities for providing recurring reimbursable support should be supplemented with support agreements that define the support, basis for reimbursement, and the billing/payment process.

Memorandum of Understanding (MOU). Memorandums that define general areas of understanding between two or more parties. - *the MOU explains what each party plans to do, however, what each party does is <u>not</u> dependent on what the other party does (e.g., does not require reimbursement or other support from receiver)*.

Tenant Command. A command located on or near another command's base from which the tenant command receives base operations support.

APPENDIX C: SAMPLE INTERVIEW QUESTIONS

Describe what you feel are the major problem/s with managing the ISAs and how would you fix the problem/s?

This question was asked to get an understanding of what the managers felt were the problems and their interpretation of a solution.

What determines if NPS will enter into an ISA with another command?

This question was asked to get an understanding of the criteria NPS uses in deciding to enter into an ISA Agreement.

How many ISAs are there? Does NPS have ISAs with all its tenant commands?

These questions were asked to determine the size of the potential problem with managing the ISAs.

Describe the process of developing an ISA from its inception until it is signed by both parties?

This question was asked in order to get an understanding of the ISA process.

Describe how funding is requested, received, and obligated/expended for ISAs?

This question was asked in order to get an understanding of the flow of funds for ISAs.

What other Codes in your department or in other departments do you interface with on ISA issues?

This question was asked to determine the independencies between divisions and departments. It also provides insight into informal organizational relationships.

What ISAs do you spend the majority of your time (resources) working on? Do these ISAs take away from other less demanding ISAs or other duties in general?

These questions were asked to gauge the extent certain ISAs monopolize a manager's time.

For what purpose and how many meetings do you attend with other commands concerning ISAs? Who are the other commands?

The purpose of these questions is to determine to what extent NPS is spending time with on ISA matters with other commands.

Why did NPS enter into an ISA with the POM?

This question was asked to understand the background behind the ISA with the POM.

What changes did you make in your department as a result of the ISA with the POM?

This question was asked to determine the effect the ISA with the POM had on Codes 04 and 02.

As a customer, what problem do you see with NPS' management of ISAs?

This question was asked to gauge how a customer of NPS views management of ISAs.

As a customer, what changes would you like to see implemented by NPS to improve management of your ISA?

This question was asked to determine what NPS' customers thought about improving the management process.

APPENDIX D: TIME STUDY WORKSHEET

Below is the cover memo that accompanied the time study work sheet. The memo includes the criteria the participants used to account for their time spent working on ISA/BOS issues. The following page contains the sample work sheet.

MEMORANDUM

From: LCDR Mark Bower
To: Distribution

Subj: TIME STUDY FOR WORK PERFORMED ON ISA/BOS

Encl: (1) Time study worksheet

1. As part of my thesis I request the below personnel document the amount of time they spend working on Interservice Support Agreements and/or Base Operating Support topics.
2. The purpose of this time study is to determine how much time management is spending working on ISA/BOS issues.

Guidelines:

1. Start tracking time on October 12; finish on November 17.
2. **Do not** count every minute of every day, but instead, a good feel for the percentage of the workday (8 hours) you spent on ISA/BOS issues. Include weekends if applicable.
3. 8 hours = 100%; 4 hours = 50%; 2 hours = 25%, etc.
4. Place an "X" in the appropriate box on enclosure (1) . Any ISA/BOS work should equal at least 5%. An example would be, if for the whole day you spent 5 minutes on ISA/BOS issues, put an "X" in the 5% block.
5. **Do not** count BOS work for NPS as part of this study.
6. **Do not** count discussions/interviews with me as part of this study.
7. **Do** count all other time, such as, thinking, talking, writing, meetings, etc about ISA/BOS Issues.

3. If you have any questions please contact me at 644-9434.

Very Respectfully

APPENDIX E: TENANTS AT (OLD) FORT ORD

* CITY OF DEL REY OAKS
* CALIFORNIA STATE PARKS
* MONTEREY INSTITUTE FOR RESEARCH AND ASTRONOMY
* FEDERAL BUREAU OF INVESTIGATION
* CITY OF MARINA
* MONTEREY PENINSULA UNITED SCHOOL DISTRICT
* MCKINNEY ACT PROVIDERS
* CITY OF SEASIDE
* LAGUNA SECA RACING ASSOCIATION
* GOLDEN GATE UNIVERSITY

124TH U.S. ARMY RESERVE CENTER

902D MILITARY INTELLIGENCE COMPANY

AMERICAN RED CROSS

ARMY EMERGENCY RELIEF

ARMY CAREER AND ALUMNI PROGRAM

ARMY MATERIAL COMMAND

ARMY AIR FORCE EXCHANGE SERVICE

BUREAU OF LAND MANAGEMENT

CALIFORNIA MEDICAL DETACHMENT

CALIFORNIA STATE UNIVERSITY MONTEREY BAY

CENTRAL COAST FEDERAL CREDIT UNION

CHILDREN'S SERVICES INTERNATIONAL

COASTSIDE CABLE T.V.

COUNTY OPPORTUNITY CENTER

DEFENSE REUTILIZATION AND MARKETING OFFICE

DEFENSE PRINTING OFFICE

DEFENSE COMMISSARY AGENCY

DEFENSE DATA MANPOWER CENTER

DEFENSE INVESTIGATIVE SERVICE

DEPARTMENT OF VETERAN AFFAIRS

EMPIRE WEST COMPANIES (THORSON VILLAGE)

FORT ORD REUSE AUTHORITY (FORA)

GIRL AND BOY SCOUTS

MARINA EQUESTRIAN ASSOCIATION

RECRUIT OFFICERS' TRAINING CORPS (3RD BDE)

ROEDER INC. ORGANIZATION (BROSTROM PARK)

SACRAMENTO DISTRICT CORPS OF ENGINEERS

SCHEDULED AIRLINES TICKET OFFICE

STATE EMPLOYMENT DEVELOPMENT DEPARTMENT

THRIFT SHOP

U. S. ARMY CRIMINAL INVESTIGATIONS COMMAND

U. S. POSTAL SERVICE

U .S. ARMY RESEARCH INSTITUTE

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

VETERANS ADMINISTRATION MEDICAL CLINIC

YOUNG MEN'S CHRISTIAN ASSOCIATION

* = SERVICE SUPPORT AGREEMENTS LIKELY
Source: BRAC update presentation to Admiral Mercer, February 10, 1995

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